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Diagnostic Points In Rectal Cancer*

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Rectal cancer untreated has a one hundred per cent mortality and makes up five per cent of the total cancer deaths. Fortunately an awakening interest in the diagnosis of intrarectal lesions, the more general employment of the proctoscope, increasingly effective methods for visualizing the interior of the large bowel by roentgen-ray have made it possible to detect the presence of malignant tumors of the rectum and colon and their precursors in a stage when surgical management can offer considerably more optimism than in the past.

Moreover, the existence and characteristics of the various benign tumors which may be found in this portion of the bowel are now sufficiently recognized that a differential diagnosis is possible before surgery rather than following it.

It is an interesting fact that intestinal malignancy is found chiefly at the point of narrowing in the bowel where mechanical trauma occurs—the esophagus, the stomach, the splenic flexure of the colon, the recto-sigmoid canal and the anal canal. We have confirmed the observations of Tuttle and Rankin that more than 60 per cent of so-called rectal cancers originate in the recto-sigmoid and ten per cent of our series have been found in the terminal anal canal.

For practical purposes the benign tumors which by reason of frequency of occurrence, the necessity for diagnostic differentiation or possibility of malignant degeneration are of constant importance in our work, have been adenomas, adenomyomas and eleomas. The adenoma is by far the most common. Buie found that two and a half per cent of all persons proctoscoped at the Mayo Clinic over a four year period had one or more polyps. The foreign body granuloma, eleoma, which is produced by the injection of certain oils into rectal tissues in the treatment of hemorrhoids is of high incidence in all communities in which this form of therapy is popular, and endometriosis involving the recto-sigmoid and rectum is either increasing or is being recognized more commonly.

Adenomas are encountered as occasional polyps, villous papillomas or in the condition known as multiple polyposis. Approximately 50 per cent of polypi indicated their presence by bleeding, discharge of pus or mucous, local irritation, or protrusion. While their primary nature is evident upon direct visualization, the ever present possibility of malignant degeneration compels their removal and microscopic examination as a routine procedure. The electro-surgical unit has simplified this procedure to the point where it can usually be performed safely without hospitalization of the patient. Villous papilloma is a slowly growing soft tumor with a large base which may cover a considerable portion of the rectal wall. The discharge of large amounts of clear mucous is a striking symptom associated with the condition. A low grade malignancy supervenes in many of these neoplasms after a period of years. Where the mass is small, it may be removed by fulguration although complete resection of the bowel is often indicated for larger growths.

Multiple adenomatosis is believed to be a familiar disease unless it is associated with

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colitis. The rectum and sigmoid are chiefly involved and symptoms are always present including abdominal cramping, diarrhea, and

Fig. 1. Invasion of the wall in upper rectum by adenomyoma. In this patient biopsy was necessary to differentiate the lesion from sarcoma.

blood stained mucous. The tendency at this time favors colectomy for the condition because of its carcinogenic activity although Gabriel of London has suggested a more conservative management which includes removal of such adenomas as may be reached through the proctoscope and routine examination of the bowel over a period of years. If malignancy occurs, it is usually in the sigmoid or rectum and this portion of the bowel may be radically excised if and when indicated.

It is a fairly common finding to note a single small adenomyoma in the recto-vaginal septum in the course of a routine vaginal or rectal examination on a female. Occasionally the patient gives a history of pain during the menstrual period referred to this locality. More rarely large masses or small annular deposits have been observed to infiltrate the sigmoid and upper rectum and these may give rise to serious complications. Mucous and blood are late or absent as erosion through the intestinal mucosa seldom occurs, in which the lesion resembles sarcoma. The differential diagnosis often is quite difficult and biopsy may be necessary. Figure 1 demonstrates this fact. This is particularly true when the invasion results in stenosis and in my own experience and that of others, annular adenomyomas have been resected on a mistaken diagnosis of cancer.

Some years ago the presence of firm, submucosa tumors became so common an observation in our proctoscopy of patients who gave a history of having received injections for hemorrhoids, that biopsy was performed in twenty-two cases of this kind and it was thus determined that the indurated, nonulcerated, yellowish lumps were foreign body granulomas which resulted from the inability of the tissue to absorb oils present in the solutions used in the previous treatment. Wallace and I reproduced these tumors by experimental injection of various oils into human tissue and determined that mineral oil was the prime etiologic agent and that certain vegetable oils in large amounts would also produce this type of tumor. Grossly the eleoma suggests sarcoma of the rectum which also is a non-ulcerating growth; the clinical stricture which results when several eleomas coalesce is not unlike annular carcinoma in appearance when erosion of the surface epithelium occurs from obstipation. Where the diagnosis remains uncertain after examination of an individual giving the history of

Fig. 2. Sudan III stain of excised tissue from elemon (injection oil tumor).

submucosal injections, the use of a fat stain on a bit of excised tissue will reveal the presence of the injected oil. (Fig. 2.)

With the exception of sarcoma which occurs in the rectum in an incidence of 1 to 200 carcinomas, the malignant neoplasms of the rectum are basically epitheliomas and adenocarcinomas. As has been stated, the great majority of these tumors in their earlier stages are situated in the recto-sigmoid canal above the reach of the examining finger and in an area where the x-ray is of doubtful value. During this early period the sigmoidoscope is the only efficient and certain method of detecting their presence. In later stages, after the tumor becomes bulky, it does prolapse into the ampulla of the rectum and may apparently appear over-night if the digital examination has been relied on exclusively before this time.

While carcinoma of the bowel occurs chiefly in persons of mature years, the fact must not be overlooked that this disease is of possible occurrence in young persons. J. G. Kerr and I have recently reported the results of the analysis of one hundred consecutive cases of carcinoma of the rectum to determine the relative incidence in persons of early and later life. Seven per cent of these cases were under 30 and seventeen per cent under 36 years of age. The grade of malignancy present in the younger group was not materially different from those of older aged periods although colloid cancer was found more frequently and squamous cell cancer less frequently. Because the tumors themselves were apparently not intrinsically more malignant, we must assume that the earlier spread of lesions in younger individuals indicated by shorter than average duration of symptoms and earlier gross involvement of lymphnodes and neighboring structures, is due to a partial absence of defensive barriers in young persons. We have reason to feel that the gradual rise during the past fifty years in the number of young individuals reported as developing cancer of the rectum is a real increase and that etiological factors are at work which have lowered the former partial immunity of young persons to cancer, especially of the lower bowel.

The chief etiologic agent of cancer of the rectum and recto-sigmoid is the benign polyp or adenoma. Practically all writers now agree that the adeno-carcinoma passes through a benign stage at which time it is thoroughly amenable to local removal. It is my opinion that cancer in the anal canal, however, originates as the result of the long continued presence of some benign inflammatory lesion. In my experience 84 per cent of individuals with cancer in this locality presented evidence of some such attendant and preceding disease; the conditions apparently giving rise to the malignancy include fistulae, ulcer, hemorrhoids, anal papillae and pruritus. Either adenocarcinoma or epithelioma may develop in the anal canal; adenocarcinoma may originate at the opening of a fistula tract above the dentate line or in one of the vestigial glands which Tucker and Hellwig of Wichita, Kansas, have described. Epithelioma, of course, is superimposed upon lesions of the dentate line, anus or perinal skin.

It has been indicated that "rectal" cancers are found chiefly in the recto-sigmoid canal and the anal canal. The characteristic syndromes of growths in these two locations are dissimilar and the symptoms of cancer of the ampulla of the rectum present a blend of the two syndromes. An analysis of a group of 25 cancers of the anal canal seen by us demonstrated that pain was the presenting symptom in 60 per cent, only six of the cases were definitely constipated and only sixteen had themselves noted passage of blood in sufficient amounts to alarm the patient. In spite of the accessibility of the lesion the average duration of symptoms in this group exceeded nine months.

An analysis of our cases of cancer located in the recto-sigmoid canal demonstrated that the average duration of symptoms was ten and one-half months and that the presenting symptom was constipation in 61 per cent, diarrhea in 22 per cent, gross blood seen in the stool in 11 per cent and tenesmus in 6 per cent. Upon questioning, 78 per cent of our patients admitted that they had seen blood at sometime during the course of the disease. It is quite important to note that cancer in this location, in fact a malignant tumor in any part of the left colon, will in more than one-fifth of the patients reveal itself by a constant, usually blood-stained diarrhea which may easily be mistaken for colitis or amoebic dysentery by the attending physician.

It is apparent that the diagnosis of rectal cancer in its early stages is complicated by a constant necessity for eliminating the presence of malignant degeneration in ancient lesions of the anal canal, in adenomas of the bowel and in the ulcers of chronic colitis. The earlier symptoms of anal and rectal carcinoma are concerned with the presence of such predisposing pathology plus certain additional signs, never pathonomonic in themselves, often vague, but sufficient to suggest to the alert physician the advisability of a careful, complete and expert rectal examination, supplemented, if indicated, by a colon ray. Probably one of the most constant of these very early signs is a sense of vague discomfort in the rectum which is not relieved by defecation. Bleeding may not be severe, and bleeding may arise from other

causes; however, all rectal cancers bleed at some stage of their existence. While pain is often present in anal cancer, intrarectal pain may not be depended upon as a diagnostic sign although discomfort in the lower back may offer a suggestive lead if coupled with other symptoms.

Fig. 3. Typical flat cancer rectum showing induration and abrupt change to normal mucosa.

Once the suspicion that a malignant tumor may be present exists in the physician's mind, palpation, inspection and biopsy make an accurate diagnosis thoroughly possible and upon this diagnosis the individual treatment of each case may be properly predicated, whether it be electro-coagulation, radiation or resection. The four cardinal points to keep in mind during the physical examination of the rectum are that a rectal cancer is an indurated lesion with an ulcerated surface, that it is a single growth and that the surrounding and adjacent mucous membrane is so thoroughly normal in appearance that an abrupt line of demarcation is present at the junction of the mucous membrane and the tumor. Figure 3.

Comment: There is a curious and constant relationship between all the commoner rectal neoplasms; the thread that binds the group together is the ever present specter of malignancy. The benign adenoma of today may tomorrow contain the nucleus of cancer; invading endometriosis must be differentiated from sarcoma and, where extensive bowel infiltration has occurred, has in itself many of the characteristics of local malignancy; the factitial tumor, eleoma, presents a definitely cancriform picture.

It is apparent that accurate and comprehensive diagnostic measures are essential in the presence or possibility of any rectal neoplasm. The entirely laudable attempt to popularize rectal examinations on the part of the practitioner has at the same time deeply inculcated a peculiar dogma that this procedure may properly consist entirely of the casual introduction of the index finger. The fact that the majority of rectal tumors are in the upper rectal zones suggests that careful direct visualization of the entire rectum and recto-sigmoid is also indicated; the fortunate trend of opinion which has rescued biopsy from an undeserved obliquity affords an additional safeguard to the patient where the presence of malignancy or the degress of malignancy present are undetermined.

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A Discussion of the Treatment of Bladder Neck Obstruction*

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The literature is crowded with articles discussing, pro and con, different methods of approaching bladder neck obstruction, yet I am going to attempt a brief discussion of this subject in the time allotted.

Three classical surgical methods have been developed: first, the suprapubic; second, the perineal; and, third, the transurethral approach. The first two have been called perineal and/or suprapubic prostatectomy. More truly they are perineal and/or suprapubic prostatic enucleations, as they attempt only the removal of obstructing tissue, peeling out that portion which obstructs. Prostatectomy should be reserved for procedures totally removing the prostate gland. These two surgical methods have been argued by many of the masters in these techniques. Both are classical operations, each having its own merits and pitfalls. For the occasional surgeon, and especially those who have to work alone or with one assistant, the suprapubic method is much safer. Operative mortality has been reduced to a minimum by the different proponents of each procedure. Suffice it to say that the surgeon should pursue that approach to the bladder neck he is acquainted with, striving, in every detail, to get his technique as fool proof as is possible.

The transurethral approach has had a very stormy birth. Coming on the horizon when both of the other two methods were strongly advocated, it has been challenged on two sides. This method consists in removing the obstructing tissue with a wire loop, or hot or cold blade, through a sheath placed in the urethra. Numerous instruments have been devised, and at times confusion has existed as to different claims by one over the other.

The transurethral approach was attempted in the nineteenth century by Guthrie, Civiale and Bottini each working separately and apparently accomplishing very little clinically. Hugh Young, an American urologist, first used it with clinical success. Doctor Young used an enlarged sheath, resembling the sheath of his cystoscope, simply inserting a circular blade to cut the tissue entrapped in the fenestra. This was termed the Young punch. Caulk added a cautery to this blade and called it the Caulk cautery punch. Braasch, Bumpus and Thompson, using a Braasch cystoscopic sheath perfected another instrument, cauterizing the tissue with needle penetration. This was another enlargement of the punch. Frischer, in 1932, advocated simple needle fulguration of the obstructing tissue, allowing it to slough. It was advised in some beginning hypertrophies to simply roll an electrode over the surface allowing it to cauterize and thus shrink this tissue. Stern, Davis, Kirwin, McCarty and others, using a high frequency current capable of cutting and coagulating under water, perfected two types of instruments, one with a closed fenestra, the other with an open fenestra. They used a small wire loop to cut the obstructing tissue and a larger wire loop to coagulate the bleeding points. I believe a clearer conception can be secured by classing all of these procedures under one name, transurethral approach, leaving the individual surgeon to choose the instrument he can get best results with.

The electrical side has seen many changes. It is quite a step from the simple cautery of Caulk to the tube and spark gap machines on the market to-day. All of these individuals were working towards the same end, that is under vision cutting away the obstructing tissue and providing better methods of drainage and hemostasis. The pre and post-operative care of these patients has developed markedly. Preliminary vasectomy to prevent epididymitis, which occurs in about 4 per cent of the cases is used. When this simple operation is done before placing an in-dwelling catheter in the bladder for drainage, or before operating on those in which preliminary drainage is unnecessary, it will in every instance prevent epididymitis. I have not had any cases of epididymitis since doing

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preliminary vasectomies routinely. Catheter drainage is far superior to suprapubic cystotomy for preliminary drainage. Occasionally a patient will be unable to tolerate an indwelling catheter, but this has not happened to any of mine. Better and better catheters are constantly being devised for drainage. Alcock, Foley, Caulk and Wappler have assisted in this feature.

Pathological Anatomy: The bladder neck in the male consists of the posterior urethra bounded by the internal and external sphincter muscles and including the prostate gland which is pierced by the ejaculatory ducts. This gland is enclosed in a very strong, poorly elastic capsule and partly surrounded by the fascia of Denonvillier. The prostate gland is very susceptible to engorgement, infection with fibrosis, hyperplasia or hypertrophy, and malignant degeneration. When it undergoes any of these changes the posterior urethra suffers, the act of urination is interferred with and thru this interference the trend of symptoms commonly called prostatism are developed. Thru this intereference with urination the waterways are obstructed at the bladder neck, and the bladder musculature will be unable to empty the bladder. Thus a vicious circle is produced, more obstruction, more interference, more disturbance. We believe that the act of urination results from the trigonal muscle acting as a lever to pull open the internal orifice and at the same time there is a relaxation of both sphincter muscles and a spasm of the detrussor of the bladder forcing the stream thru the urethra. This trend of events occurs in perfect rythmn, supposedly from a distended bladder, by reflex. Any obstruction at the bladder neck will require more pull by the trigonal muscle to open the internal orifice, resulting in hypertrophy of this muscle. It also will require more and more pressure from the detrussor muscle resulting in its hypertrophy. Rents are made in this muscle resulting in diverticulae and trabeculae. A Bas Fond develops behind the prostrate gland and the trigonal muscle is thrown into various stages of hypertrophy. All of these changes can be readily recognized thru cystoscopic inspection. This crippled bladder is unable to empty itself and residual urine increases in amount as these factors accumulate. Infection added here to the residual urine only aggravates the symptom complex. Sterile retentions may go along until enormous dilations of the bladder will result in overflow incontinence. These residual urines, accompanied with straining and increased pressure in the bladder, will overcome the muscle of Bell controlling the uretheral orifice. This will cause back pressure on the upper prinary tract, dilation and eventually suppressed renal function. Uremia ushers the victim out.

Types of Bladder Neck Obstructions: The bladder neck may be obstructed at any age from numerous causes. First, the congenital valves of the posterior urethra. Second, acute infections of the posterior urethra. Third, pathological conditions of the prostrate gland a. abscess, b. fibrosis or bar formation, c. hypertrophy or hyperplasia, and, d. malignancy. The pediatrician and general practitioner who cater to the treatment of children from babyhood to the pre-school age should become well acquainted with symptoms of bladder neck obstruction, as this occurs in young children, and when once developed is quite devasting in character. Here congenital defects are present in valve formations in the posterior urethra. These obstruct the urinary stream. If recognized early, good results can be secured by simply fulgurating or resecting these valves.

In acute posterior urethritis and prostate abscess the history will usually reveal specific infection. The age group varies from the teens to the forties. Rectal examination will usually enable one to establish the diagnosis of acute prostatitis or prostatic abscess. Treatment consists in eradicating the infection and promoting drainage. I have never had to resort to anything more drastic than massage, to drain a prostatic abscess, and ultimately cure the patient. The heavy prostatic capsule will protect the patient and prevent spread of the infection to the perineal tissues or rupture through the rectum.

The prostate gland is the chief offender in bladder neck obstruction. This pathological condition generally strikes the patient after the meridian of life is past, or in the sixth, seventh or eighth decade of life. These patients often will not recognize the advancing condition. If questioned closely the symptom complex began with a frequency of urination, nocturnal in type, which gradually increased, interfering with normal sleep and rest. Later comes hestitancy, slowness and splitting of the stream, decreased stream power, dribbling and overflow incontinence. Infection added to this will cause burning, pain, difficult urination, strangury and perhaps hematuria. Somatic symptoms, as pain in the back, in the perineum, down the legs and general aching over the body may be present. Constitutional symptoms as decreased appetite, constipation, hemorrhoids, headaches, lassitude, insomnia, failing vision, decreased water intake (hoping this will help his frequency), chills and fevers and finally if unrecognized he develops the symptoms of uremia in more detail. His sexual functions

will wane. Power of erection is lost or decreased, libido is decreased and he may wonder if it is not his age causing him to slow up. Oftimes these patients become introspective, developing various grades of melancholia and neuroticism.

Physical Examination: Any pathological condition obstructing the waterways will produce symptoms and pathological findings throughout the whole organism, as the urinary tract is a major excretory system and if interferred with will result in devasting effects far removed from the lesion. Bearing this in mind then the clinician and urologist should work co-jointly, the urologist becoming a fair clinician and vice versa. The headache may be uremic or come from the simple obstruction of the rectum and the resulting constipation, likewise with other symptoms as lassitude, insomnia, poor appetite, etc. We then, should consider the whole organism in the examination, noting especially the blood pressure; heart; blood evaluations; as r.b.c., w.b.c., urea, sugar and hemaglobin; teeth and throat for infection; abdomen for impacted feces or distended bladder; chest for hypostasis; genitalia for scrotal tumor, hernia or pin point meatus; the extremities for edemas and signs of circulatory failure and the skin for pallor, etc.

Physical Findings of the Urinary Tract: The urine must be checked for Ph, sugar, albumen, specific gravity and the presence of r.b.c., w.b.c. or bacteria. Digital rectal examination may reveal important information. An examination of the elderly male is not completed without a digital rectal examination. This should include palpation of the prostate gland, seminal vesicles and bladder neck. Note first the condition of the rectal mucosa, internal or external hemorrhoids, on inserting finger, note the tonicity of the rectal sphincter. With the finger in the rectum, locate the posterior urethra, trace this backwards and it will fuse with the sulcus of the prostrate, tracing this back it will fuse with the bladder neck or the furthermost point of the prostate. Emerging from the prostatic sulcus on either side is found a protrusion, the lateral lobes, note their size and consistency. Cancer of the prostate can be detected here in its earliest stages. Tracing the lateral lobes laterally note their borders and determine if any induration is in these tissues. Tracing the lateral lobes outward and upward the seminal vesicles should be felt. We should all become well acquainted with these anatomical parts. Nowhere else will the sense of touch render more valuable information. Carcinoma of the prostate gland develops in the posterior group of glands and will make itself known by areas of induration months and perhaps years before it will produce symptoms of bladder neck obstruction. The prostate gland may be massaged and the seminal vesciles stripped, and their secretions inspected under the microscope.

Permit the patient to void. Here it should be remembered that a digital rectal examination may inhibit the bladder reflex some from pain and you get a false residual urine estimation, but the prostate can be better examined with a full and distended bladder as this pushes the prostate down where it can be felt easier. Pass a small soft rubber catheter and note the residual urine. If any is present this should be checked on other occassions to determine its constancy. If he persits in carrying above two ounces, further examination is needed to determine its cause. This calls for special instrumentation, the panendoscope or cysto-urethroscope, to visualize the bladder and bladder neck.

I would like to issue a warning on catheterizing the elderly male patient. In many instances, and especially the ones with bladder neck obstruction, the posterior urethra is distorted and elongated. This makes it difficult to pass a catheter to the bladder unless proper instruments are available. If a soft rubber catheter will not go easily, do not push it, or try to make it go. Marked damage can be done. Either get the proper equipment or send the patient to some one properly equipped. I have seen seriously ill patients as a result of an over zealous attempt to pass a catheter. Hemmorrhage, lacerations of the urethra, epididymitis, acute retention and chills are a few of the complications. I know of no other place in the practice of medicine where gentleness is more in order, nor where it will be more appreciated. These men to begin with are afraid of being hurt.

Treatment: Carcinoma of the prostate gland is one of the most formidable pathological conditions to which man is heir. It is far more common than was previously thought. Two pathologists, working separately, have announced that they found it to occur in 18 per cent of men beyond the age of 60 years. They proved this by routine autopsies and serial section of the glands. Unless detected while within the prostate capsule, total prostatectomy offers about the only hope of cure. Total prostatectomy is a formidable operation, and can be accomplished only by the perineal approach. It is quite mutilating and is accompanied with a high surgical mortality, yet it offers these victims the best chance of permanent cure. We know that the operation for cancer of the prostate was never thought to be effectively treated by the suprapubic approach.

The best surgeons doing this approach did not claim curative results. There have been some claims by men employing the transurethral approach to effectively cure cancer of the prostate. I do not see how they can make such claims. I believe it is impossible to cut away all of the prostatic tissue even down to the capsule with a punch, wire loop or what not, much less cut away the capsule. I really think they would have a hard time kidding themselves into believing this. If the cancer has progressed beyond the capsule, the transurethral approach offers the most effective method of palliative relief, providing this cancer is symptomatic and obstructing the bladder. It is a great improvement over the older suprapubic cystotomy. Cystotomy made these poor patients a burden to themselves as well as everyone around them. Now we have a method that will cut this tissue away, and permit the patient space to void through. It goes without saying that tissue sections should be run on all resected tissue from this region. We never know positively until after operation that a given prostate is malignant or non-malignant. Deep x-ray therapy offers some palliative hope also. Most of these tumors are resistant to a high degree to x-ray therapy, still this should be given a trial. We can see the need here again for routine rectal examinations. We must recognize these cancers while they are within the capsule, otherwise these patients will continue to suffer a very high mortality. It has been suggested and very truly, I believe, that the reason for the greater number of bladder neck obstructions and cancer of the prostate is that the longevity of man has been materially increased and we can expect it to increase further, because all trends are pointing towards lengthening the life span.

Most urologists are agreed that bar formations and median lobe hypertrophies are best handled by the transurethral approach. Transurethral resection is the ideal way of handling these pathological conditions. The advocates of perineal and suprapubic approaches admit that a bar formation is very hard to handle effectively. It is very hard to determine what type of obstruction the patient is suffering from unless one can thoroughly examine the bladder neck. Much information can be secured with a posterior lens. It is mandatory to resection to be first a good cystoscopist, for one cuts here only that tissue which is acting as an obstruction. If one deviates too far forward in the urethra, incontinence will result, and cutting too far inward will result in bladder rupture or an undermined trigone.

Many of these men will not need a resection to clinically cure them. I believe that one of the first requisites should be that the patient should carry some residual urine. We know what the older masters of the perineal and suprapubic techniques learned about this work, but at times we forget to apply it to the present day facts. They were very reticent to operate, the condition commonly called "prostatism sans prostate." This probably results from some posterior urethral irration causing the symptoms of prostatism without any hypertrophy or perhaps a mild degree of fibrosis. It is debatable in my mind whether these men should be operated at all unless they carry some residual urine.

I would like at this point to outline the treatment of these cases and those who are potential obstructions carrying less than two ounces of residual urine with very few symptoms. Light prostatic massage, heat from a hot sitz bath or Elliott or diathermy, instillations and irrigations of the posterior urethra with mild silver proteins, gradual dilations of the posterior urethra and the administration of Testosterone proprianate much material help has resulted from various biologicals as estrins when used on the female for the climacteric. It is now believed that man passes through the same phase as the climacteric in women. Working on this hypothesis estrins were tried but with little results. Testosterone proprianate is synthetically prepared by Schering as Oreton and Ciba as Perandren. It is a hormone from the testicle. It reaches us in 5, 10 and 25 milligram ampoules. Using this drug I have been able to make some of these cases more comfortable. In one instance I was able to reduce the residual from six to less than one-half ounce. Its chief fault is the expense, but I believe that these patients should be given the privilege of refusing this form of therapy before picking them up and resecting them or operating them by the other two approaches. We should remember that a vasectomy will help some of these men. I don't know how, but they seem to do better after it is done. I routinely cut both vasa before inserting urethral catheter for drainage or sending them in to the hospital for transurethral resection. It is an office procedure and easily done.

Enlargement of the lateral lobes is a debatable subject. It is definitely harder, more tedious and more chance for hemmorrhage in resecting a lateral lobe than a median bar or median lobe. This is the type of case in which the transurethral approach is challenged most. Frankly, I do not believe there is much difference except in massive lateral lobes where two and perhaps three sittings may be necessary in transurethral work. We well remember when the suprapubic surgeon challenged the perineal and vice versa. I be-

lieve we are coming to the same condition concerning the transurethral approach. Excepting the massive lateral lobes, which are a definite minority, I believe the best method for the patient would certainly consider the transurethral approach above the other two. We hate to keep these patients on the table very long, an hour is about the maximum, and it can be said that after an hour or there abouts, if enough tissue is not removed, another sitting will have to be made. Another thing to consider is the condition of the patient. I believe that one can work on much sicker patients, and patients with less kidney or heart reserve with the transurethral approach than the other two, or it has been my observation. I like for the patients I attempt suprapubic prostatic enucleation on to be in pretty good condition, with good reserve. Unfortunately they all are not in this condition. Thus transurethral work aids the man who in many cases would be a casualty if operated the other two ways. I know that I have resected many who would have been casualties with the other two approaches, and have lost only two with transurethral resection.

In review I would like to say that the general practitioner as a rule sees the patient with bladder neck obstruction first. This patient is his responsibility, and he certainly has violated a trust if he does not prepare himself to do routine digital rectal examinations, catheterize these patients and carry through the necessary steps to determine whether or not he should be a candidate for surgery. If he is not, then attempt to treat him logically as a medical case.

Vitallium for Nasal Skeleton Support

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Most everyone who does reconstructive work about the nose realizes that there are some particular disadvantages encountered in the use of cartilage. About six months ago we were discussing some of the problems that we had encountered, especially with pickled cartilage, at which time we decided to use vitallium for nasal skeleton framework.

It is well established that vitallium has the least irritability of all metals when buried in human tissue. Since the monumental work of Dr. Venable, vitallium has been used in many cases, both in bone surgery and in dentistry.

After agreeing that vitallium might be valuable in nasal plastic work, Dr. Drummond, working with Mr. Minter of the Hettinger Laboratories, fashioned a plate for use in a case of saddle nose.

The first plate was made approximately 5 cm. long and the upright portion 2 cm. in length; the dorsal portion was flared near the middle to a width of 2 cm. Multiple perforations were made in the metal believing that these would be more or less infiltrated in time. The upper end of the plate was slightly curved and sharpened so that it might fit under the periosteal flap. This plate was found a bit too large. After clinical trial we reduced the size of the plate and also added an opening in the upright post so that this might be fixed to the end of the septum. This allowed us to use in this particular plate the so-called "orthopedic stitch."

In one case it was found that the upper end of the plate did not set well against the frontal bone because we were unable to raise a periosteal chip. We therefore added to the plate a drill hole through which we drove a vitallium nail for fixation.

Preliminary Preparation: The first patient that we had at hand in which to use this plate was a case of saddle nose (syphilis). There was a large external scar which

Fig. 1 — Case No. 1. Pre-operative photo showing saddle nose with depressed adherent scar.

Fig. 2 — Case No. 1. Post-operative photo showing improvement of dorsum of the nose.

Fig. 3 — Case No. 1. Pre-operative x-ray showing absence of nasal bone.

Fig. 4 — Case No. 1. Post-operative x-ray. Vitallium plate in place. (Note perforations in plate.)

Fig. 5—Case No. II. Pre-operative photo shows buckled and distorted cartilage.

Fig. 6—Case No. II. Post-operative photo shows result of vitallium support.

Fig. 7. — Case No. II. Post-operative x-ray picture showing vitallium plate in place. (Note nail used for fixation at upper end of plate.)

had been a perforation of the nose at the height of the disease. There was a large opening of the nasal septum approximately one inch in diameter. Before the operation the patient was submitted to photographs and x-rays. It was noted that the nasal bone had been destroyed.

Technique of Operation: Under local anesthetic a curved incision was made beginning on one side of the columella extending upward and curving outward a distance of about one inch. The skin over the nose was thoroughly mobilized together with the elevation of the old scar on the side of the nose. A periosteal flap was lifted with a chisel for the insertion of the upper end of the plate. Mobilization was carried out down to the maxilla for the bed of the upright post. The plate was inserted very much as a cartilage graft is inserted. Closure was carried out with interrupted black silk sutures. One suture was passed through the nasal mucosa behind the columella incorporating the upright arm of the plate. The nares was packed with vaseline gause. No external splinting was employed. The patient was kept in the hospital for a few days.

There was a minimum of swelling of the nose, no serous drainage appeared at the wound. There appeared about a week later some irritation of the lacrimal sac on the left side which promptly cleared after hot packs. The patient then told me that she frequently had a swelling and a discharge from the left lacrimal apparatus. (Chronic dacryocystitis).

Case No. 2 was one of bifid nose which had previously been treated by autogenous cartilage graft. The cartilage had buckled at the upper end. This was attended by considerable scarring and infiltration of the nasal soft tissues. A vitallium plate was fitted for this case using the nail at the upper end for fixation.

Case No. 3: Congenital syphilis with saddle nose. A plate was fitted obliterating part of the depression on the dorsum. It was thought in this case that completely obliterating the angle on the dorsum of the nose would give an unnatural appearance to this round-faced girl.

Each of the cases that we have done has been examined carefully and measurements

Fig. 8—Case No. III. Full face pre-operative view showing flattening of nose.

Fig. 9—Case No. III. Pre-operative lateral view of nose showing loss of support along dorsum.

Fig. 10 — Case No. III. Pre-operative lateral x-ray of skull.

Fig. 11 — Case No. III. Post-operative full faced photo showing elevation of nasal dorsum and correction of epicanthus.

Fig. 12—Case No. III. Post-operative lateral photograph showing elevation of nasal dorsum and tip.

Fig. 13—Case No. III. Post-operative x-ray plate showing vitallium plate in place.

made previous to operation to determine the size of the plate needed. Photographs and x-rays were made to help in this determination.

Unlike the cartilage graft, the plate must be made before the operation. The technician tells us that he must heat the metal to 2700 degrees in order to shape it. So far with this technique we are unable to open the nose and have the plate made at the same time because it takes several hours for the fashioning of the metal.

The advantages of vitallium as we have used it may be summarized as follows:

1. The metal is non-irritable to human tissue (this fact has been established in other branches of surgery).
2. There is no absorption of the metal.
3. No infection so far has been noted.
4. Hospitalization has been reduced to a minimum.
5. No chest operation is necessary as in the use of autogenous cartilage.
6. The plate may be tailored to measure in each case.

The disadvantages of vitallium:

1. The metal cannot be bent or moulded at the time of the operation.
2. The plate is somewhat harder to touch than cartilage. The patients state that it seems hard when touched with the finger tips.

Disadvantages of pickled cartilage:

1. Absorption takes place in some cases even in the absence of infection.
2. The supply is often difficult to maintain.
3. Curling and even breaking of cartilage sometimes occurs.
4. Infection is usually not well bourne.
5. Aesthetic aspect must be considered.

Disadvantages of autogenous cartilage:

1. Chest operation necessary for removal of graft.
2. Hospitalization increased.
3. Cartilage may curl after insertion.

CONCLUSION

To date we have used a vitallium plate instead of cartilage in nasal skeletal support in four cases. So far we have encountered no infection and hence no drainage from any of the wounds. The illustrations and the x-rays give some idea of the appearance of these vitallium plates. We modified the plate several times as we saw need for it. So far we have not used it immediately following the division of the nasal arch for correction of traumatic deformity about the nose.

Time and further study will no doubt give us much more adequate information as to the use of this metal for nasal plastic surgery.

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The Management of Late Sythilis With Special Reference to Neurosyphilis*

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Realizing the magnitude of this subject, I do not propose to give a detailed study, but only to call attention to the basic principles of the management of late syphilis in relation to the individual patient, each of whom presents a separate problem. There is no doubt that the successful therapist, in this stage of syphilis, is the one who can correctly and conservatively interpret the therapeutic needs of his patient in relation to his clinical and serological findings. To make a pathological differentiation between the early and the late stages of syphilis, it is necessary to call attention to the fundamental pathology which formulates the three stages of this disease.

In the early stage, the characteristic phy-

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siological response is identified by the uniformity of distribution of organisms, of lesions, and of immune reactions, each following a fairly well expected course and timed more or less accurately with reasonable certainty. The late stages of syphilis are characterized by a variable variety of pathological activity, occurring in unpredicted locations, with no reference to time, and involving almost any structure of the body, impairing its function to any degree from an imperceptible alteration to its complete destruction. The patient's immunological background is responsible for one patient's being highly resistant to this disease and capable of living a normal span of life, with no clinical signs of infection; while the lack of this ability in the next case allows the disease to produce a chain of ravages leading to complete disability. It is highly probable that the foundation of this background is either made or altered by the treatment given in the initial stage; and I feel that it is here that the physiological principles are formulated which account for the variable period of latency, and determine the course of the disease through the late stages. This mechanism which requires the presence of organisms in the system, even though it may be feeble, is sufficient to give a successful resistance to any new infection, and has a major role in furnishing the patient the ability to live successfully a longer or shorter time with his syphilis.

Once this stage has been reached, a biological cure becomes an improbability, and its achievement is more or less a therapeutic dream. If this biological cure, then, is impossible in our present state of therapeutic endeavor, what is the purpose of treatment? This is many fold. The first aim, as in all medical practice, is symptomatic relief. In most cases, this is well within reason and its achievement is fairly easy. The lesions are readily healed with little treatment, but observation has taught that relapse is the rule unless treatment is prolonged. The second aim is the restoration and maintenance of normal anatomy and with this, if possible, the return to normal function. When the realization of these aims is impossible, the imperative issue is to stop the pathological progress and to preserve the condition of status quo. If these problems are only partially solved, the progress made should be established, as far as possible, on a sound basis, leaving the general condition of the patient in a state of improved health for the remainder of his life. The serological progress many times becomes a secondary issue, and one of the outstanding mistakes in the treatment of late syphilis is to allow the major point of interest to be focused upon the serological findings, instead of upon the general clinical condition of the patient himself. The progress made with reference to these accomplishments is entirely dependent upon the structures attacked and the degree of damage produced by this invasion. The clinical yardstick is the only acceptable measure of therapeutic success in late syphilis, and the amount and type of treatment to be administered can only be determined by the study of the individual case. The final outcome of these several questions is dependent upon the general physical background of the individual, the extent and location of his pathology, and the presence or absence of complications, all correlated in his management with accurate clinical interpretations.

The management of the various types of late syphilis almost demands a special field in each case. The first of these is the problem of diagnosis and treatment of latent syphilis. This is an outstanding branch due to the great frequency with which it is seen. The total absence of all clinical signs on which to mark therapeutic progress, makes the management of this type of late syphilis an increasing difficulty. Clinical latency, then, is syphilitic infection unrecognizable without the aid of laboratory findings, and represents that long period of time frequently seen in this stage of syphilis where the relation between the host and the infecting organism is more or less balanced. To establish this diagnosis of latent syphilis, a searching examination is mandatory. The moment syphilitic disease is discovered by other than serological means, a clear cut history, or the birth of a syphilitic child, the period of latency ends. Altered spinal fluid findings demands special study and excludes the case from the group of latency. It is evident that, with the development of a finer diagnostic acumen, greater numbers of patients will be removed from this group and placed in the special fields of treatment. The beautiful example of this progress is the earlier diagnosis of cardiac syphilis with negative physical evidence, made with the electrocardiograph. The importance of this stage of syphilis is realized only when we consider that about one-third of all luetics seen fall into this class. The prognosis of the truly latent syphilitic, who receives the proper prolonged treatment, is not discouraging. The principal reasons for treatment are progression, relapse, and infectiousness. Progression in all syphilitic disease, after a time, is a usual rule, and relapses to an infectious state diminishes with increasing frequency during the first five years. The congenital transmission of syphilis is of major importance in the period of latency, demands a special chapter, and should be considered

with a degree of thoroughness not permitted in this discussion. After true latency has been established, the aim of therapy is no longer the accomplishment of a cure, as in early syphilis, but, as already mentioned, the arrest of progression and the prevention of the infection of others. The therapist may hope only to aid his patient to live with his infection in a true state of symbiosis for a normal span of life; and this is not improbable. To accomplish this, the choice of treatment and management is sometimes difficult. The art of practice is many times taxed to get the proper cooperation from the apparently well patient. This is usually done, however, when absolute frankness is maintained and simple explanations are made. Syphilitics are great questioners and have an uncanny memory for what is told them. In the usual latent case, treatment is begun with a heavy metal with the intermittent use of the iodides, and relatively more of these are given than in the treatment of early syphilis. The studies of the cooperative group indicate that better results are seen when this ratio is maintained. These studies further indicate that the results are about equal whether continuous or intermittent treatment is used. A rule acceptable to most clinics is—a year of continuous treatment followed by a year of intermittent treatment. Wassermann fast cases are handled in very much the same way, with the possible addition of fever therapy during the second year. Many times, we find the Wassermann to be reversed during the third to the fourth year, after a rest of prolonged degree. During this treatment period, the patient should receive from twenty to thirty doses of the arsenicals and fifty to sixty doses of bismuth, with potassium iodide usually given intermittently. The older cases well tolerate an occasional course of mercury. Short courses of the heavy metals are indicated during the third to fifth year. I do not feel that the serological progress of the case should alter this program, and the optimum of treatment should be given.

There are many special types of syphilis that could easily consume our discussion, but allotted time allows consideration only of the most important. From a death dealing standpoint, we can not help but give first place to cardiovascular syphilis. Our advancement in this field of syphilitic management is dependent upon the acuteness with which the early diagnosis is made, and it is becoming an accepted practice to make use of the electrocardiographic investigation in an effort to establish, if possible, the presence of cardiovascular involvement in the pre-clinical stage. There is no doubt that the therapeutic success is dependent upon this factor more surely than in any other type of syphilitic management, and it is also a certainty that, in this field of therapy, the individualization of cases is necessary. The syphilologist should assuredly make use of free consultation with the internist in this phase of syphilitic disease.

Another type of visceral syphilis of outstanding importance is infection of the central nervous system. It has not been long since syphilitic involvement of the central nervous system was regarded as untreatable except by palliative measures. It is now seen to yield rapidly when managed with the newer methods of diagnosis and therapy, and it is not boastful to state that it can be mastered from the practical standpoint by any reasonably equipped and sufficiently interested physician. The advancement in spinal fluid examination and study alone has afforded practical diagnosis with an accuracy which was thought beyond reason a few decades ago. It is accepted, I think, that invasion of the nervous system probably occurs in nearly all patients with syphilis during the first year, but, in spite of this constant invasion, relatively few patients develop actual tissue involvement. If the protective mechanisms are so lacking as to permit real tissue damage, it may be detected by physical signs and symptoms almost as soon as it occurs. A diagnosis of a symptomatic neurosyphilis is made when the spinal fluid abnormalities are present with the absence of clinical evidence. It is evident, then, that this most important stage of neurosyphilis is distinguishable only by laboratory methods. This period exemplifies an outstanding demand and indication for the routine examination of the spinal fluid of all syphilitics where the disease is two years old. The importance of this routine procedure is further demanded by the fact that abnormalities of the spinal fliud precede by many years the appearance of clinical damage, and the potential paretic and tabetic can be pre-diagnosed in the early stages of his infection rather than when irreparable tissue damage has resulted from his syphilitic disease. If the patient is so fortunate as to have this information available for his care he may have his treatment so altered as to obviate the clinical signs and symptoms so familiar in the late neurosyphilitic. Once the nervous system is involved to a degree sufficient to produce c l i n i c a l manifestations, definite types of central nervous system syphilis may be recognized. Many more or less elaborate divisions of these types have been outlined. The simplest and most practical is as follows: the interstitial type which involves the supporting structures of the brain and spinal cord; and the parenchymatous which repre-

sents the involvement of true nervous tissue. The two great divisions of this type are the tabetic and paretic forms, each having its own chain of symptoms and laboratory findings. The interstitial type may occur at any time during the course of the disease, but it is usually seen between the second and the fifth years. The parenchymatous form is usually later in appearing and is commonly noted from the seventh to the fifteenth year of infection. The management and observation of these various types of neurosyphilis forms the most fascinating chapter in all medical therapeutics. Before any treatment is begun it is necessary that a correct classification of the type of nervous system involvement be made. A detailed history, a physical examination and a full laboratory report on the blood and spinal fluid are required to fully acquaint the physician with all the evidence necessary, in order that he may select the method of treatment suitable for a particular situation. The management of asymptomatic neurosyphilis with minimal changes is little different from the routine treatment of the late uncomplicated case. When these changes have advanced to a degree of moderate abnormalities the plan is intensified, and usually a six months trial is given before checking results. It is here that the titre of the fluid Wasserman is used as a guide. When the improvement, either from the clinical or the laboratory angle, is slow, a full course of tryparsamide is added with the usual precautions, and in the exceptionally resistant case fever therapy is used. The duration of this plan is usually from two to two and a half years.

Where the definite tabetic and paretic formulae are encountered, it has been the experience that routine treatment does not bring desired reversals, and the more drastic measures are resorted to without delay. An intensified routine treatment is not neglected, but is supplemented at once by fever therapy. This is demanded due to the fact that syphilis in this stage is very destructive, and the pathological progress moves with a speed unseen in nearly all other phases of syphilis. The fever therapy used is usually malaria or typhoid vaccine. The hypertherm, or electric heat cabinet, is effective, but hazardous, and its popularity is seemingly short-lived. There is no doubt that fever therapy definitely enhances the effectiveness of specific treatment, and I feel that the combination of these two is necessary for maximum therapeutic accomplishment.

The diffuse meningovascular neurosyphilitic presents such a variety of clinical pictures that it makes it difficult to outline more than a generalized type of management. The original pathology in this type of involvement is primarily inflammatory, rather than degenerative, and its treatment is usually successful when carried out in an intensified routine manner. Drugs of high spirocheticidal value are called for, due to the speed of destruction sometimes seen. The once feared Herxheimer reaction is not noted as frequently in this form as was once taught but, as a safe rule, preparatory treatment is conservative and sound, fever therapy being added only late in the course.

When the definite tabetic is encountered with the characteristic clinical and serological evidence present, routine treatment alone is of little value. The blood-spinal fluid barrier is obviously not penetrated and, in most cases, progressive development is the general rule. There is an occasional temporary recession of symptoms only to be followed by the usual pathological advancement. The management, then, is started as an intensified routine type and supplemented immediately by fever therapy. Subdural treatment, using the Swift Ellis technique or Ogilvie's modification of this, is well tolerated and has an accepted place in the routine management of the tabetic. This subdural treatment is given in a series of about six doses at two week intervals, and the series may be repeated after two or three months if observation warrants. I feel that this treatment is imperative, especially in cases of primary optic atrophy. Mercurialized serum was at one time advocated, but has been promptly dropped. Repeated spinal drainage was also popularized a few decades ago, but is now discredited and has been abandoned as a type of therapy in all clinics. According to the conclusions of Stokes, Osborne, Moore, O'Leary, and a few others, repeated spinal drainage in the neurosyphilitic will reduce the cell count, but otherwise has no beneficial effect. This also has been my experience.

One of the saddest pictures in all medicine is the definite paretic, and when this characteristic picture of degeneration is encountered and is verified by the usual laboratory findings, drastic treatment is immediately called for. I do not think that we are permitted a trial at routine treatment because of the speed with which this destructive process moves. It is advised by Wile, Moore, and others that fever therapy be started at once where the physical condition permits, and in this practice I fully concur. The prognosis is entirely dependent upon the type and amount of destruction produced, and the presence or absence of complicating factors. As in the management of all debilitation, rest and general supportive care is an outstanding part of the treatment plan. I think that there is little doubt about the maximum benefits from fever therapy. I have made

extensive use of typhoid vaccine in these cases and find it on a par, as a method of porducing fever, with malaria. It has many advantages, and can be given by any conscientious physician. I usually employ from ten to fourteen fevers, and follow this immediately by routine treatment with old arsphenamine.

When the treatment of the neurosyphilitic is terminated, the responsibility of the physician is not ended. He must remember that in all syphilis, relapse is the rule and the patient's only safeguard against recurrence is post treatment observation, both from a clinical and laboratory standpoint. Much responsibility of a medical and sociological nature is associated with the care of the syphilitic, and there is no doubt that the successful therapist is the one who can correctly correlate these many factors, interpreted and adjusted to the needs of the individual case.

Tuberculosis of the Genital Tract*

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This paper constitutes a review of the recent literature on "genital tuberculosis" accompanied by comments based on my personal experience. The material reviewed comprises four papers published in the Journal of Urology during the past two years. To this I have added other facts taken from the latest editions of text books written by Eisdendrath, Hinman, Cabot, Young, and Campbell, also the year books 1937, 1938, and 1939.

The term "genital tuberculosis" refers to involvement by the tubercle bacillus of the prostate, seminal vesicles, vas deferens, testicle and epididymis. It is agreed that the disease is due to a secondary focus elsewhere in the body, this lesion often being healed, quiescent and antedating by many years the lesion of the genital tract. The lungs are the most frequent seat of the disease, with the kidney and bone involvement next in order.

Incidence—Primary prostatic tuberculosis is rare, less than a dozen proved cases being found in literature. All writers agree, however, that in the presence of tuberculous epididymitis, the incidence of prostatitis and vesiculitis is exceedingly high. Bothe, writing in 1927, collected a rare mass of statistics from various authors and found that in a series of many thousand autopsies upon patients who died from some form of tuberculosis, the genito-urinary tract was involved in 5.13 per cent. In a group of 907 cases of genito-urinary tuberculosis, 65 per cent showed evidence of an associated pulmonary lesion. Lowsley and Duff in 1930 reviewed an enormous mass of statistics. In a series of 52,070 autopsies, they found an incidence of 2.1 per cent of uro-genital tuberculosis. In 1933 Sweany reviewed this phase of the subject with great care. He states that genito-urinary tuberculosis is to be expected in about 1 per cent of autopsies for all conditions. While genital tuberculosis may attack the infant or the old man, it is most commonly seen between the twentieth and fortieth year when the entire genital system is in its most active stage. However, congenital tuberculosis of the testical, a placental transmission, has been described by Drischfield and Giraldes. Eisenstaldt lists a case of surgical tuberculosis of a boy three years old and

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in "perfect health," and quotes another case of Sussig's at 11 months. Kanotorowitz recorded 46 cases of primary testicular tuberculosis in 51 boys under 17 years old with genital tuberculosis. The apparent rarity of tuberculosis of the epididimus in boys is largely due to failure to recognize the condition. Unfortunately the early process of the disease is usually masked by hydrocele. The incidence of tuberculosis epididymitis in boys is highest before the age of 7.

In 91 cases of tuberculosis epididymo-orchitis in boys collected by Goodman, 42 were less than 2 years of age. The remaining 49 were between 2 and 15 years.

Pathogenesis—The paths travelled by the tubercle bacilli are confusing and conflicting. Some believe that they travel only in the direction of the secretory stream; others, whose opinion is equally as good, believe that they travel contrary to the stream. It has also been shown that the genital organs, like the kidney, can excrete tubercle bacilli from the blood stream under certain conditions. All observers seem to agree that trauma, whether this be due to actual violence or to chemical or bacterial (such as gonococcal) irritation, is an important determining factor.

Those who hold the view that tuberculosis first attacks the epididymis, explain its spread to the prostate and seminal vesicles by the way of either the canal of the vas deferens or the lymphatics surrounding this structure. It is generally conceded that the earliest lesion in the epididymis is in the globus minor, or tail, of the organ which is in the beginning of the vas deferens. The lesion may be confined to the intertubular tissue, but generally originate within the ducts. In any event, "distortion and obliteration of the architecture quickly follow." Eventually, the entire epididymis becomes involved but extension to the testicle is not the rule, and may not occur even after many years of contact with the tuberculous epididymis. In a series of 210 tuberculous epididymes, reported some years ago, 66 testicles were found to be affected.

Those who believe that the primary form lies in the prostate and seminal vesicles, believe that the bacilli reach the epididymis either through the deferential canal by means of a reversed peristalsis or through the lymphatic channels in a direction opposite of the normal secretory flow.

Blandini's experiments substantiate this view by placing the organism in the posterior urethra of an experimental animal, and recovering the bacilli in the epididymis within twelve hours. In 1912, Walker illustrated this dictum by tying off the vas deferens previous to the injection of the bacilli; they still reached the epididymis, provided that the ligature did not include the sheath of the vas or any of the lymphatics running in the cord, but if the sheath of the vas and surrounding lymphatics were tied, few organisms were recovered in the epididymis. Walker has more recently repeated these observations in the human, using for material, cases dying from prostatectomy. He has made multiple sections from prostatic capsules, vesicles, cord and epididymis. By using appropriate stains, he demonstrated a dissemination of organisms through the lymphatics. In any event, the bacilli undoubtedly reached the organ first involved by way of the blood stream.

The second epididymis is frequently involved early. It is also recognized that if the diseased epididymis is removed, it will retard or prevent appearance of infection in the opposite side. It is probable that by removing this important source of infection, the already infected prostate and vesicles become less active and, therefore, less likely to spread the disease. There is no question but that ligation, or better still, resection, of the vas deferens on the opposite side will generally prevent appearance of tuberculosis in that epididymis. There is no case in which the epididymis was involved, did the vesicle on the same side fail to be affected.

Diagnosis—Diagnosis is largely presumptive and is made by the preliminary non-instrumental routine steps of examination (history, urinalysis, X-rays, urethragrams and general physical examination). The seminal vesicles, prostate, and membranous urethra are studied by rectal examination. Induration and irregularity are the characteristic findings, together with varying degrees of enlargement. Adhesions are usually present. The induration produced is nodular and firmer than that found in ordinary vesiculitis and prostatitis, and is sometimes hard enough to be confused with that of prostatic carcinoma. Aspiration of the epididymis will generally give enough fluid for microscopic examination and detection of the tubercle bacillus. The vas deferens should be outlined as far up as possible, and differential diagnosis may not be in the least difficult in certain cases. Induration, enlargement and nodularity of the organ, involving especially the lower pole, with but insignificant pain or tenderness, are among the chief diagnostic features. If, in addition to this, the corresponding vas is thickened and nodular, somewhat resembling a chain of beads, the evidence is strengthened. Most important of all, however, is the presence of a healed or active sinus, for, so far as we know, no other disease of the scrotum will produce this

particular condition. In certain cases, the presence of a hydrocele will so mask the scrotal contents that its removal is an imperative first step toward diagnosis. It must be remembered, however, that even the most expert may sometimes go wrong in the matter of diagnosis in scrotal conditions. He may be dealing with an edididymitis of an unusual type produced either by the gonococcus, a pyogenic coccus or the colon bacillus. It may even be a case of torsion of the testicle and the surgeon must be especially on his guard for those cases of tumor of the testicle, which, beginning in the epididymis, may present a most uncanny likeness to tuberculosis of that organ.

Treatment—Treatment of genital tuberculosis will depend largely upon what the surgeon believes to be a primary focus of the disease and is roughly divided into (a) radical surgical; (b) conservative surgical; (c) non-operative or medical. All three methods of treatment must take into consideration that genital tuberculosis is merely a local manifestation of general body conditions and that treatment is one in immunity.

Young is an advocate of radical surgery, though it is not devoid of danger . . . his mortality is 4 per cent. Conservative surgery is merely an epididymectomy, which is the present-day choice of the vast majority of surgeons. Prognosis, in the main, is favorable, and life may often be prolonged for years. The important point in this operation is to divide the vas deferens well beyond the internal inguinal ring over the bony pelvis. No fistula will result if this is done, whereas, if the vas is divided at the top of the scrotum, fistula is certain to follow. It is well known that even the most simple operation on a tuberculous patient may induce meningitis or miliary tuberculosis.

Dr. Barney, in his series of 300 cases, treated by conservative surgery, had a mortality of 2 per cert, these dying from systemic tuberculosis. In only two cases of his 300 operations, did the tuberculosis progress to the prostate and vesicles. This, in his opinion, proves that the primary genital focus lies not in the prostate, but in the epididymis.

There is a limited group of cases with tubersulosis of the seminal tract in whom radical surgery apparently gives better results than conservative or purely medical treatment. The cases may be largely divided into two groups: group one, those in whom clinically, the seminal vesicles and prostate are definitely involved with or without involvement of the epididymis, and group two, those cases of definite tuberculosis of the epididymis without clinical evidence of involvement of the vesicles and prostate. The results in cases where there is definite nodulation and involvement of the prostate and vesicles, or vesicles alone, without tuberculosis elsewhere in the body, by removal of the organs affected together with the epididymis give a high percentage of cures. The principal objection to radical surgery in these cases is the likelihood of persistent perineal sinus, which is rarely urinary, and only occurs in those cases where there has been rather advanced involvement of the prostate. Those cases in which the lesion is limited to the vesicles, promptly heal and urinary fistulae do not occur. Sinuses, when not urinary cause little, if any, inconvenience. Barney studied a series of 99 cases and found the prostate to be involved in 40 per cent within the first six months.

It has already been stated that as a corollary to surgery of the tuberculous, whether radical or conservative, hygienic treatment of the most intensive variety would be given, covering as long a period of time as possible. Besides the usual routine to details of diet, liquid intake, rest and exercise, this involves all that we know about heliotherapy and also tuberculin.

All urologists appreciate the formidable problems presented by metastases of such systemic diseases as tuberculosis. While the bacilli are the proved factors in etiology, all phases must be reviewed and weighed before any procedure of treatment is decided upon, especially in advanced pathology of the genital tract. Our hope lies in an ever-widening knowledge of both m e d i c a l and surgical treatment, to make possible a greater immunity, and the elimination of mutilating surgical procedures.

• THE PRESIDENT'S PAGE •

The President of the United States, in his message to the American people December 29, gave a clear and concise report concerning the present world crisis and placed in the hands of the people the answer for security—UNITY.

Unity of purpose with an understanding of the problems to be confronted and backed by positive action will succeed wherever and whenever tried. Labor, industry, farming and the professions must know the problems of our country and unite their active forces and abilities in order to assure a free America.

The medical profession in America will only add to this unity in direct proportion to which each doctor assigns unto himself the responsibility of cooperating in any manner for which he may be called. There has never been any doubt that an emergency call for service will be answered one hundred per cent, yet emergencies often become disasters unless proper preparations have been made.

It is significant to note in this respect that there are still a few doctors in Oklahoma who have failed to return the A. M. A. Medical Preparedness questionnaires,* yet these same doctors would be the first to answer an emergency call.

A final appeal is now being made for completion of these schedules An emergency exists, and let us be prepared to avert a catastrophe. All other agencies are speeding up their program to aid National Defense; surely our profession will do likewise. If you are one who has failed to cooperate in this preparedness program, won't you please complete the schedule today and mail it to me?

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*Additional questionnaires may be obtained by writing to the Oklahoma State Medical Association at 210 Plaza Court, Oklahoma City.

Henry H. Turner

President.

EDITORIALS

POOR BUT PERTINENT

In this hazardous period of social, economic and political instability, which is threatening the accepted foundations of life, including the time-honored principles of medical practice, it is well for us to continue voluntary care of the poor. This can be accomplished either through individual or organized effort. Accumulated experience indicates that individual care is not wholly without material reward.

Dr. Daniel Drake, one of the great in the history of medicine, once said to Dr. Lunsford P. Yandall of Louisville, Kentucky: "I have never seen a great and permanent practice, the foundations of which were not laid in the hearts of the poor. Therefore cultivate the poor. If you need another, though sordid reason, the poor of today are the rich of tomorrow in this country. The poor will be the most grateful of all your patients. Lend a willing ear to all their calls."

In Abraham Flexner's autobiography, *I Remember*, there is a statement suggesting that Dr. Yandall may have passed this advice on to his illustrious sons. Dr. Flexner says that when he was a boy one of them treated him for a severe and obscure illness and that "his remuneration was a weekly loaf of mother's bread, which I regularly used to carry to his home."

Early in his career Benjamin Rush said the poor were his best patients because "God is their paymaster." At the age of sixty-eight, on his deathbed, he said to his son: "Be indulgent to the poor." Though a century has passed, we find the following in *The Life of Chevalier Jackson*. Dr. W. W. Keen is quoted as having said: "Chevalier Jackson's skill was acquired by a lifetime of work with the poor." No man could wish for a greater reward than Dr. Jackson's skill and the realization of what it has meant to humanity.

Returning to the sordid side, it may be pointed out that in the 18th century, Fothergill, whose annual income was $125,000, said, "I climbed into the pockets of the rich over the backs of the poor."

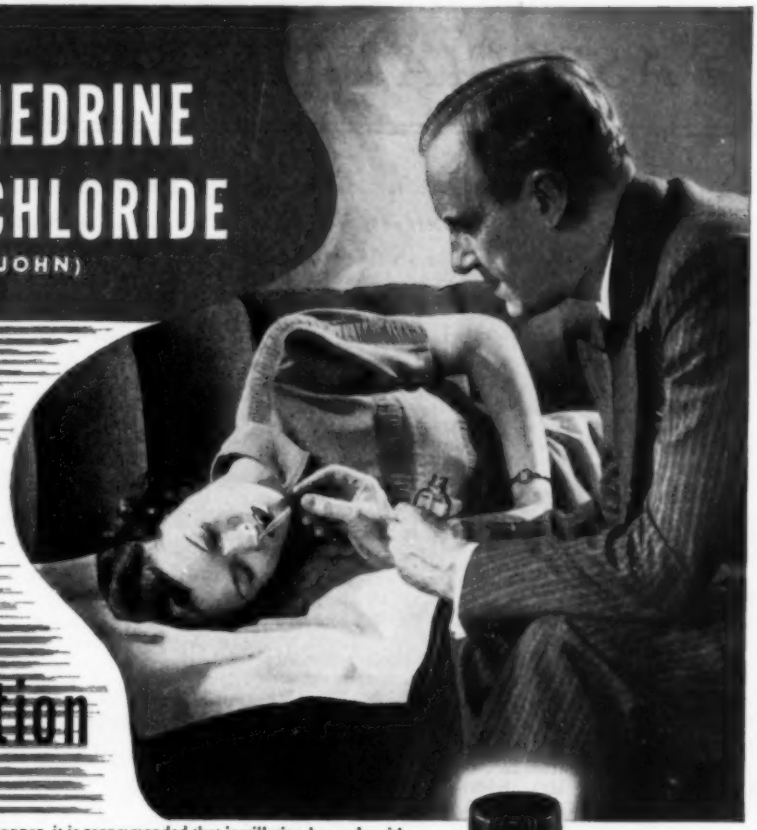
The author recalls that one of his professors, a brilliant teacher and busy practioner, attributed his high professional r a t i n g among the well-to-do on Fourth street to the influence of his washerwomen and nursemaid patients in poverty row on the water front.

In his remarkable work on surgery, Henry of Moudeville made the following statement: "If you have operated conscientiously on the rich for a proper fee, and on the poor for charity, you need not play the monk, nor make pilgrimages for your soul."

Let us pray for the preservation of personal freedom in the choice of a physician. It is this that keeps every good doctor's door open to the poor. The doctor needs the chastening influence of their presence and they need the sense of security and independence which a free choice helps to preserve. In time of trouble there is something intensely vital about this intimate relationship. No doubt this is due to the fact that the true physician is genuinely interested in his patient and does what he can to mend broken bodies without regard to religious faith, moral, social or financial position.

RACĔPHEDRINE HYDROCHLORIDE

(UPJOHN)



relief from nasal congestion

When using the dropper, it is recommended that instillation be made with the patient in the lateral, head-low posture described by Parkinson.*

Racĕphedrine is synthetic racemic ephedrine. On local application to nasal mucous membranes, a 1% solution contracts the capillaries to a moderate degree and thus diminishes hyperemia and swelling. It is used in the nostrils to shrink the congested mucosa in rhinitis and sinusitis.

Solution Racĕphedrine Hydrochloride may be applied to the nasal mucous membranes as a spray or with a dropper.

Solution Racĕphedrine Hydrochloride consists of 1% of the drug in a modified Ringer's solution containing sodium chloride 0.85%, potassium chloride 0.03%, calcium chloride 0.025%, magnesium chloride 0.01%, and chlorobutanol 0.5% (for stabilization purposes).

*Arch. Otolaryng. 17:787, 1933

Solution Racĕphedrine Hydrochloride 1% is available in one ounce dropper bottles for prescription purposes, and in pint bottles for office use.

Capsules Racĕphedrine Hydrochloride, ¾ grain, are packaged in bottles of 40 and 250 capsules.

Upjohn

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Fine Pharmaceuticals Since 1886

ASSOCIATION ACTIVITIES

Annual Meeting to Be in Silver Glade Room at Skirvin

Dr. Charles R. Rountree of Oklahoma City, who has been selected by the Annual Meeting committee as general chairman for the 1941 Session of the Oklahoma State Medical Association, announces that the annual meeting will be held in the Silver Glade Room of the Skirvin Tower Hotel, Oklahoma City.

Guest speakers for the annual meeting have been nominated by the officers of different scientific sections and an outstanding group of speakers is assured for the meeting. Names of guest speakers will be announced in the February issue of the Journal.

The following committees have been announced by Dr. Rountree and the Board of Directors of the Oklahoma State Medical Association will act as an advisory committee.

Commercial Exhibits committee members are: Dr. Elmer R. Musick, chairman; Dr. R. Q. Goodwin and Austin Bell. Members of the Scientific Exhibits are: Dr. Onis G. Hazel, chairman; Dr. Joseph Kelso and Dr. Jack P. Birge. Programs and Badges committee members are: Dr. J. C. McDonald, chairman; Dr. Gregory E. Stanbro and Dr. O. A. Watson. Those on the Women Physicians committee are: Dr. May Sheppard, chairman; Dr. Leila Andres and Dr. Aileen Petway.

The Auxiliary committee includes: Mrs. Floyd Keller, Mrs. Le Roy Sadler, Mrs. Grider Penick, Mrs. Gordon Ferguson, Mrs. W. K. West and Mrs. C. R. Rountree. On the Sports committee are: Dr. Hugh Jeter, chairman; Dr. Chester McHenry and Dr. Theodore G. Wails. The Alumni and Fraternity Dinners committee includes: Dr. Jack Kuhn, chairman; Dr. Bob Howard and Dr. Gerald Rogers. Entertainment Committee members are: Dr. Leroy Sadler, chairman; Dr. John Lamb and Dr. Fred Hood.

Members of the Program committee are: Dr. Dale Collins, chairman; Dr. Tom Wainwright and Dr. R. L. Noell. Members of the Publicity committee are Dr. D. H. O'Donoghue, chairman; Dr. Carroll Pounders and Dr. L. J. Starry.

Surgical Addresses To Be Submitted

All doctors who wish to appear on the Scientific Section on General Surgery of the Oklahoma State Medical Association in May are requested to submit a synopsis of their address not later than February 15. Dr. John Powers Wolff, Oklahoma City, president, has announced.

This will enable the committee to select a diversified program, Dr. Wolff explained. All material should be mailed to Dr. Raymond L. Murdock, Medical Arts Bldg., Oklahoma City, chairman of the section.

Lederle Has New Representative

Lederle Laboratories have recently announced the addition of a new representative for Oklahoma, Mr. Paul A. Snelson.

Mr. Snelson was formerly manager of the Snelson Laboratory in Oklahoma City and is returning to Oklahoma City after an absence of four years.

Problem of Dependent Children Discussed in Conference

The committee on Medical Economics of the Oklahoma State Medical Association met with representatives of the Department of Public Welfare December 20 for a discussion of ways and means by which the Department of Public Welfare might cooperate with the Oklahoma State Medical Association to develop more effective procedures related to the determination of physical or mental incapacity as a factor in eligibility for aid to dependent children.

Meeting with the representatives of the Association and Public Welfare department was Mrs. Lucille Smith, Medical Social Work Consultant of the Social Security Board, Washington, D. C.

Mrs. Smith outlined and discussed plans and procedures in operation in other states but pointed out that each locality would have its own particular problems and that no set plan would be applicable to all conditions.

In concluding the meeting, after a general discussion, Dr. Horace Reed, chairman of the Association committee, requested that the Public Welfare Department submit a proposed plan which could be given consideration at an early meeting of the Council of the Association and further suggested that the Department submit forms it was now using, a statement of regulations and policies relating to incapacities and all other information as well as procedures in use at the present time in order that a more comprehensive study of the problem in Oklahoma would be possible.

The material requested by Dr. Reed has been submitted by the Public Welfare department and the Association committee will meet at an early date to further consider the request for cooperation made to the Association.

Postgraduate Course at the University Offered

The University is keeping abreast of the current trend of "doing something for the physician in practice." During the past semester, for the first time, the school has been able to assist the graduate in "brushing up" his knowledge.

Many compliments have been received on the organization of the two-weeks' postgraduate course in Obstetrics, which was conducted several times during the past semester. Inquiries and enrollments have been accepted from many Oklahoma physicians, as well as from doctors in Kansas and Missouri.

It is no longer necessary for the busy physician to go far from his practice, or to pay a large fee for postgraduate instruction. The course at the University has been officially mentioned as a model for the surrounding state universities. Almost every major department of the school participates in the teaching, making every day of the course worth any expense or inconvenience.

During the coming year, this course will be repeated several times, and enrollments are now being accepted for the course beginning Monday, February 3, 1941. Applicants should write directly to the Department of Obstetrics, Room 8, University Hospital, Oklahoma City, stating their time preference. If accepted, the applicant will be charged a fee of $15.00, covering the use of equipment and supplies. No other charges are made.

Main Office and Entrance to Polyclinic Hospital

EFFICIENCY CONSTANT AIM OF POLYCLINIC

The business-like office giving entrance to Polyclinic Hospital reflects the high standard of service which this institution sets for itself. The lobby is spacious and cheerful. Thick tile makes for quiet.

Here is the switchboard, constantly and courteously attended, giving telephone service to every room. Back of the desk is the office of the secretary, who handles the business of the hospital. Physicians who practice here appreciate the thorough attention to detail that is an integral part of Polyclinic service.

MARVIN E. STOUT, M.D.
Owner

JOHN A. CUNNINGHAM, M.D.
House Surgeon

POLYCLINIC HOSPITAL

THIRTEENTH and ROBINSON OKLAHOMA CITY

Congress on Industrial Health Holds Third Annual Meet

All phases of industrial health, a vital factor now in the present speed-up of American production, were discussed at the Third Annual Congress on Industrial Health Jan. 13 and 14 at the Palmer House in Chicago.

The primary concern of this Congress is to acquaint the physician and others with the importance of preventive medicine and surgery as applied to industrial organization.

Among topics discussed by the various speackers were: "The Physician in Industry and National Defense," Irvin Abell, M. D., chairman of the Health and Medi cal Committee in the Council of National Defense, Louisville, Ky.; "Prevention and Treatment of Hand Infections," Sumner L. Koch, M. D., Chicago; "Employment of the Physically Handicapped," D. L. Lynch, M. D., President of the American Association of Industrial Physicians and Surgeons, Boston; and "Essentials of First Aid and Later Management of Industrial Eye Injuries," Sidney Walker Jr., M. D., Chicago.

Since many able-bodied men will probably be inducted into military service, industry may need to recruit workers from the physically handicapped and from the aging groups. Induction of these groups into industry was thus an important phase of discussion at the Congress.

Doctor Taylor Honors and Is Honored

At the December meeting of the Hughes County Medical Society held in Holdenville, Dr. W. L. Taylor entertained members at a chicken dinner. Dr. Taylor was honored by his colleagues with the Presidency of the Society for the thirteenth consecutive time.

University of Oklahoma School of Medicine

The annual meeting of the Oklahoma Society of Medical Technologists was held Saturday, November 9, 1940, at the University of Oklahoma School of Medicine. A large number of technicians from the State of Oklahoma were registered. The program was as follows:

10:00 A. M.—Registration

11:45 A. M.—Demonstration and Discussion of the Asheim-Zondek reaction and reading for vaginal smears, with lantern slides. Dr. A. A. Hellbaum, Associate Professor of Physiology.

11:15 A. M.—Demonstration: The Frozen Section Method. Methods of Overcoming Objections and Difficulties. Dr. L. A. Turley, Professor of Pathology, assisted by Miss Katherine Aderhold, M. T., and Doris McLean.

1:30 P. M.—Determination of Blood Gases by the Use of the Van Slyke Apparatus. Pratical Suggestions on Colorimetric Methods. Dr. I. S. Danielson, Assisttant Professor of Biochemistry, assisted by Vernal Johnson, M. T.

2:00 P. M.—Hematological Technique. Dr. J. M. Thuringer, Professor of Histology, assisted by Miss Ellen Wright, M. T. and Dorothy Nolan Brown.

3:00 P. M.—Animal Toxins. Speech with lantern slides. Dr. A. I. Ortenburger, Professor of Zoology, University of Oklahoma.

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is indicated in the treatment of

★ Acute Anterior Urethritis (due to Neisseria gonorrheae)

★ Trichomonas Vaginalis Vaginitis

★ Vaginal Moniliasis

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Silver Picrate is a definite crystalline compound of silver and picric acid. Available in the form of crystals and soluble trituration for the preparation of solutions; suppositories; water-soluble jelly; and powder for insufflation.

Complete information mailed on request

★ JOHN WYETH & BROTHER, INCORPORATED ★

PHILADELPHIA, PA.

3:45 P. M.—Color Reactions Used for the Detection of Alkaloids. Demonstration by Dr. H. A. Shoemaker, Professor of Pharmacology.

4:15 P. M.—Demonstration: Blood Cultures. Stool Cultures for Dysentary and Typhoid, with Demonstration of Special Media for Stool Cultures. Dr. H. D. Moor, Professor of Bacteriology, assisted by Ida Lucille Wallace, M. T.

General Robert U. Patterson, Dean of the School of Medicine, attended the meeting of the Southern Medical Association at Louisville, Kentucky. He served as Chairman of the Section on Medical Education and Hospitals. As his chairman's address he read a paper entitled "Modern Standards and Trends in Medical Education."

Dr. Donald B. McMullen, Associate Professor of Hygiene and Public Health, attended the meetings of the Southern Medical Association and the American Society of Tropical Medicine at Louisville, Kentucky. He read a paper entitled "The Incidence of Intestinal Parasites in School Children of Eastern Oklahoma" before the section on Public Health of the Southern Medical Association. Dr McMullen also read a paper entitled "The Distribution and Control of Schistosome Dermatitis in Wisconsin and Michigan" at the meeting of the American Society of Tropical Medicine.

Many of the clinical members of the Medical School staff attended the meetings of the Southern Medical Association. The following members of the Medical School and hospital staffs had scientific exhibits: Dr. Joseph W. Kelso, Associate Professor of Gynecology, "Analysis of One Thousand Hysterectomies"; Dr. Onis G. Hazel, Associate in Dermatology and Syphilology and Dr. C. R. Rountree, Assistant Professor of Orthopaedic Surgery, "Syphilis of the Skeletal System"; Dr. Henry H Turner, Associate Professor of Medicine, "Clinical Endocrinology."

Dr. Ben C. Hucherson, Fellow in Orthopaedic Surgery, collaborated on an exhibit from the University of Louisville School of Medicine on "Fractures of the Humerus" at the meeting of the Southern Medical Association.

The "Building Program" of the School of Medicine, in order of importance and priority includes:

1. An Isolation Building.
2. A Nurses' Home.
3. Alteration of Present Nurses' Home to provide living accomodations for Residents and Interns and provide additional space for the Out-Patient Department.
4. A Wing for University Hospital.
5. A Wing for the Crippled Children's Hospital.
6. Utility Building and Equipment.
7. An Annex to the Medical School Building.
8. A Student Union Building.
9. A Phychiatric Building.
10. An Annex to University Hospital for the Treatment of Cancer.
11. Tuberculosis Building.
12. Dental School.

It is hoped that the next Legislature will provide funds to complete at least the first three items in this program. The Isolation Building will add approximately thirty (30) to forty (40) beds to the Crippled Children's Hospital as it will care for all contagious diseases arising among children in that hospital.

The Nurses' Home is needed as the present facilities are entirely inadequate. The new Nurses Home is planned to accommodate at least 150 student nurses in addition to the graduate nurses required for administration and supervision.

The alteration of the present Nurses' Home will release space in the University Hospital, now used for Resident and Intern Quarters, which will accomodate about 45 additional patients and permit better segregation. In addition the facilities of the Out-Patient Department will be increased and improved.

The University of Oklahoma School of Medicine began the Christmas recess at 5:00 P. M. on December 21st. During the holiday season a rather extensive program was carried out for the entertainment of the children in the Crippled Children's Hospital. This consisted of various musical programs and the presentation of gifts to the children. These gifts were supplied in large part by donations by the Hospitality Club, Junior League, Auxiliary to the Oklahoma State Medical Association, Philomathea Club, Camp Fire Girls, etc.; private individuals; and many business firms.

Classwork was resumed at 8:00 A. M. on January 6th. The semester examinations begin on January 23rd and will end on January 30th. Registration for the second semester will be on January 31st and February 1st.

The proceedings of the staff meetings of the University Hospitals of the University of Oklahoma School of Medicine are now being published and a copy of Volume 1, No. 1, of these proceedings is being mailed to each member of the State Medical Society. These proceedings will be published from time to time and the present plan is to send a copy to each member of the State Medical Society as they are published.

Dr. Charles F. De Garis, Professor of Anatomy, was recently awarded a $200 prize by the New York Academy of Sciences for his paper on "Aortic Arch in Primates." This paper representing about fifteen years' work compares all patterns of the aortic arch in both apes and man.

On February 7, 1941, at 8:00 P. M. in the University auditorium, Dr. Ernest Sachs, Professor of Clinical Neurological Surgery, Washington University School of Medicine, St. Louis, Missouri, will give the Leroy Long Memorial Lectureship. This lectureship is sponsored by the Phi Beta Pi Medical Fraternity and was established in 1940 as the Leroy Long Medical Lectureship.

During the past year a two weeks' postgraduate course in Obstetrics was established and several courses were given. Enrollment included many physicians from the State of Oklahoma as well as a few from surrounding states. The course has been officially mentioned as a model for surrounding state universities. During the present year this course will be repeated several times and enrollments are now being accepted for the course beginning Monday, February 3rd, 1941. Applicants should write directly to the Department of Obstetrics, Room 8, University Hospital, Oklahoma City, Oklahoma. This work is in charge of Dr. E. N. Smith, Associate Professor of Obstetrics.

Half of Graduates Remain in State

A little less than half of the graduates of the school of medicine of the University of Oklahoma are located in the state, according to figures compiled by Dr. H. A. Shoemaker, assistant dean, during the first part of December.

At that time, 473 out of 1,017 graduates were practising here. They were located in 133 cities in 74 counties of the state. Thirty graduates were connected with the medical division of the United States Army, 14 with the United States Navy, and two associated with the United States public health service.

The number of graduates connected with the medical division of the United States Army has no doubt increased since then as the entrance of many young doctors into that service during the latter part of the month and January has been called to the attention of the Executive Office.

Group Hospital Service News

OUR BABY—KEEP HIM WELL! ! !

Group Hospitalization Insurance, while just an infant of some nine months, is getting to the place where it is about to begin to walk by itself. It is over the first big hump and is beginning to take on a heavier diet. It is just now reaching the critical age where we are going to be forced to watch it carefully and give it the proper attention.

The greatest danger facing an infant of this age and temperament is not so much neglect as it is over attention. Physicians are just beginning to see that Group Hospital Service is working and working well. Patients get attention they never have received nor could they get it in any other way. And therein lies a great danger. When an insurance program of this type gets on its feet, physicians often are prone to start relaxing their vigil and patients are allowed to stay in hospitals a day or two days or many days longer than they would stay if the patient paid the bill direct to the hospital. This is not right because it costs other patients insured under the plan. It runs up the costs. It makes it impossible to reduce rates and add other services to the policies.

The Hospital Insurance plan in effect in Kansas City has been in operation eighteen months. This plan is beginning to feel the effects of this practice. Any plan would feel it. Group Hospital Service is a baby of the Oklahoma State Medical Association. It is a lusty infant. Let's keep it well.

Following is an article which appeared recently in the Kansas City Medical Journal which should sound a warning to every doctor in the state of Oklahoma and points out a "goose and golden egg" moral which is very timely:

OUR BABY—HE'S SICK ! ! !

Our baby (group hospitalization) conceived 'midst high hopes and born of mutual patient-doctor-hospital needs, has grown lustily through eighteen eventful months. He required considerable special formulae with the constant attendance of the greatest specialists during his early months. Then he brightened up, asked for solid food, grew strong, and captured the admiration of this entire community. Recently, he's developed a rash, won't eat, looks mad all the time and keeps mumbling, "They don't treat me right. They don't treat me right"—ad infinitum. When asked whom he means by "They," he says, "The doctors." "Why, you have the best specialists in town looking after you. Aren't you mistaken?" "Hell no," he sputters (learned that from his Daddy), "The doctors looking after me personally are all right, but there's too many other doctors with good intentions and not enough familiarity with my case that have me off my budget. Why don't you call a consultation of every doctor attending me and explain my case?" Then he vomited and wouldn't talk any more.

So, a consultation of every member of the Jackson County Medical Society is called. Group Hospital Service is one of sixty-six such plans in the country. Do you realize it is the only type of plan where you as the doctor have absolute authority and are trusted implicitly as the sole claim agent? It is entirely up to you to say if the patient deserves to be hospitalized, for how long, and when he should go home; two years' experience has demonstrated that something is wrong. Either we are "fudging" or haven't been willing to dismiss our Group Hospitalization patients from the hospital as quickly as other patients. Figures indicate that during the first year patients were hospitalized under the plan 8.63 days per person. The first six months of 1940 it rose to 9.1. For October 1940 it was 10.1 days. Well, what's an extra day or day-and-a-half? When multiplied by the average number of hospital admissions, around 367 for October, it means 400 and over extra days per month or some $25,000 per year used to pay for board and room for Johnny, or Mrs. P. who just doesn't want to go home until tomorrow but easily could go today *if the doctor insisted on it.* Well, what would happen to the money if we didn't spend it on extra days of hospitalization? First, it would go to reserves, so that when an epidemic or catastrophe hits, we shall be able to meet all needs and not have to go out of business, or seriously cut benefits. In case of no such emergencies it would eventually permit increase in services, such as furnishing oxygen, donors for transfusions, increases on room per day allowances, more days per year, etc.

The abuses our baby suffers are exemplified as follows: Mrs. S. had 9 days hospitalization for a fracture of the distal phalanx of the second toe. Dr. X keeps all obstetrical cases in for 19 days when the average for non-G. H. S. patients in all private hospitals is 12 days. Tonsillectomy cases under G. H. S. remain 3 and 4 days, when the average for others is one or two days. Before Group Hospitalization went into effect, the average stay for an appendectomy was 10.7 days. G. H. S. patients now stay an average of 13.8 days.

How important is this Group Hospitalization to our community? During the fiscal year ending April 30, 1940, every hospital in the plan showed an increase in admissions which was almost the same figure as of patients admitted under G. H. S. and insurance plans, of which Group Hospital Service, created and operated as a co-operative enterprise by doctors of the Jackson County Medical Society, hospitals and laymen, represents the largest group (10 per cent of the city's total population). The hospitals received 100 per cent of their bills paid on all accepted claims. This total of nearly $200,000 (G. H. S. only) thus represents money the patients did not have to pay hospitals and had left available to pay doctors. Group Hospital Service is the only plan allowing 30 days total hospitalization the first year. The plan keeps patients in Kansas City. How? It will pay for hospital services outside the community only for emergencies. Thus for any elective service, the patient must enter a greater Kansas City member hospital and be served by a Kansas City physician.

The plan is not in danger; it can be further strengthened and benefits increased, but through our carelessness an increase in rates with decrease in benefits will soon result. There is even the possibility of loss of the only physician-controlled plan in existence in this area. Isn't the baby worth rearing?

Classified Advertisements

FOR SALE—Physician's Instruments; proctology instrument; refraction equipment; one trial case; one Dick-X-ray; a new Ionto-phorator; one Spencer microscope; one cautery; belonging to the late Dr. C. E. Beitmen of Kendrick, Okla. Address inquiries to The Journal, 210 Plaza Court, Oklahoma City.

Edema 0.8 *vs* Edema 2.7

Rabbit Conjunctiva shows the influence of hygroscopic agents in cigarettes*

Average edema upon instillation of smoke solution from Philip Morris Cigarettes.

Average edema upon instillation of smoke solution from Ordinary Cigarettes.

CLINICAL CONFIRMATION: When *smokers* changed to Philip Morris, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.**

*Proc. Soc. Exp. Bio. and Med., 1934, 32, 241-245

**Laryngoscope, 1935, XLV, No. 2, 149-154

Trachoma Prevention Discussed At Joint Meeting

The Conservation of Vision Committee of the Association met with the representatives of the Public Health department, Dr. Grady Mathews, Dr. John Y. Battenfield and Dr. J. A. Morrow, January 5 for a discussion of the prevailing conditions in Oklahoma on trachoma.

The American Society for Prevention of Blindness recently reported to Doctor Matthews on trachoma in Oklahoma and pointed out that the eye sight deficiency of a large per centage of those receiving aid from the Public Welfare department was directly traceable to trachoma. Doctor Mathews at once requested a conference with the committee of the Association.

It is hoped that plans will soon be formulated whereby a survey of the trachoma situation in Oklahoma will be made in order that some plan of educational work may be placed in operation for the purpose of controlling this disease.

American Transfusions to British Given Through Use of Plasma

New technics for collecting and transfusing blood, utilizing plasma rather than whole blood, are making it possible for thousands of Americans to donate their blood for the British cause. These technics are explained by Edith Roberts, Kokomo, Ind., in the December issue of Hygeia, the Health Magazine.

A healthy donor thousands of miles from the scene of war may aid a wounded soldier by the use of plasma, the liquid portion of the blood after the red and white cells are removed.

"The difficulty of direct blood transfusion at the scene of any great disaster which shatters human bodies is evident," says Edith Roberts. "It is almost equally impossible to effect the necessary transfusion with blood which has been donated and preserved, for the simple reason that, after a very few days outside the body, whole blood deteriorates, its cells break down, and it cannot be transported and used.

"This is where plasma enters the picture. For plasma does not have to be 'grouped' or 'typed' as whole blood must be before transfusion, else the result may be fatal. Plasma from one human being can be given to any other; plasma can be transported long distances and preserved for a year or more. It can even be dried and redissolved."

She continues with the statement that over 8,000 American men and women have given their blood since the first appeal and at present blood is being taken from about 1,000 donors a week. "Donors must be between 21 and 60. They are ineligible if they have recently had an infectious disease or have ever had tuberculosis, malaria or syphilis."

The Red Cross solicits donors, handles publicity and undertakes the shipment and delivery of the plasma to England.

Medical Examiners May Make Charges

In an opinion given by Mac Q. Williamson, Attorney General of Oklahoma, the state board of medical examiners has the authority to make a reasonable charge for services rendered.

"The board has authority to adopt rules and regulations of a subordinate character which it may find necessary to carry out the public policy set forth in provisions of the Oklahoma medical practice act, and if under said rules and regulations the board performs services for which no charge or fee is established or fixed by the act, a reasonable charge or fee can be established or fixed by the board sufficient to defray the actual costs," said Williamson.

Health Aspects of the Draft*

The adoption by the American people of conscription as a national defense measure should have some distinct effects on both personal and public health. First of all, the period of military service should result in the improvement in physique of young men called into service. But also of import for the future health of our people are several other factors which are either incidental to Army life or which arise from preventive and sanitary procedures of Army medical practice. For these reasons, military service for the Nation's youth promises to be a constructive factor in the future of American public health. It is a matter of distinct public interest to know how these long-term benefits will accrue from conscription. On the other hand, there are definite and more or less immediate hazards which some of the young draftees will face, and of which the public should also be aware, because unless these hazards are known in advance and provided against, they may be a source of serious trouble.

It is to be regretted that there is little statistical measure of the improvement in physical condition of American young men during Army service. There are some scant data in studies made during the World War, based upon anthropometric measurements of the first million accepted draftees in 1917-1918 and of approximately 100,000 demobilized veterans in 1919. About the best and most trustworthy evidence of the improved condition of these men is the fact that there was an average increase of approximately one inch in chest circumference, a figure that is greater than would be accounted for by the increase in average weight and age during the period of service. Another good indication of physical betterment is that, although the average weight of draftees increased by 3.4 pounds during Army service, there was an appreciable decrease in the incidence of obesity. Thus the proportion of men weighing 190 to 199 pounds decreased from 7.9 to 7.2 per 1,000, and of those weighing more than 200 pounds, the proportion fell from 5.4 to 4.6 per 1,000. At the same time the incidence of underweight likewise decreased, for the proportion of men weighing less than 130 pounds dropped from 254.7 to 179.4 per 1,000. The extent to which military service contributed to this latter result, however, is uncertain, because many of the draftees were still within the age period in which an average annual gain in weight of 1 or 2 pounds is common.

It is reasonable to expect that appreciable improvement in general health and physique will be recorded among men called to military service in the next few years. Advances in knowledge of nutrition should be reflected in an improvement in the Army dietary. A large proportion of the new draftees will be better nourished than they were before their Army service, because they will have a diet that is adequate in all vital respects. Many draftees will also be experiencing for the first time an active life of physical work and exercise. In civilian life younger persons as well as older persons have become too dependent on machines. Because of the reduction in the amount of physical labor required in everyday work, many young people do not expend as much energy or use the large muscles of the body, either in work or in play, as much as is good for proper physical health and development. The active life of the Army, as well as the program of healthy recreation planned for the new Army, should be of considerable benefit to the draftees. Many of the men will be helped to form regular living habits because of the routines which they will experience as a necessary part of military life, and this should be of substantial, if indirect, benefit to their health.

A favorable health factor of quite another type is

*Reprinted from the Statistical Bulletin, Metropolitan Life Insurance Company, October, 1940.

the medical care which these men will receive. Of direct benefit to them and indirectly to the general public will be extensive vaccination against smallpox. For those men who have not before been vaccinated, and particularly those who come from areas where it is not compulsory or where there is effective agitation against it, this routine procedure will educate many to its value, some of whom may later be advocates of vaccination in their home communities. In a measure, vaccination against typhoid fever will accomplish the same purpose. It is notable that after the World War the death rate from typhoid in this country dropped very sharply, and one of the factors in this trend was the large scale anti-typhoid inoculation of men in Army service during the War.

The medical examination of draftees will disclose many with various types of impairments which previously had been undiagnosed or untreated. The correction of defects will be of distinct value to the men, whether or not they are accepted for the Army.

The most serious hazard that the new draftees will face is from the communicable diseases. Armies in training are necessarily quartered in relatively circumscribed areas, with the result that conditions are favorable to the spread of diseases of this type. There is good reason to expect, however, a much better record in this respect than during the World War. Our preparations today are not subject to the forced haste of 1917-1918. Housing provisions for soldiers will be more adequate now than they were at that time.

Outbreaks of the communicable diseases ordinarily characteristic of childhood may be expected, and in fact are quite unavoidable. Fortunately they will affect a relatively small proportion of the men, and specifically those who for one reason or another have not acquired immunity to them in childhood. This situation is in a sense normal in the Army, because in peace time these acute communicable diseases form a significant proportion of total Army hospital admissions for sickness, particularly among newly enlisted men. In 1917-1918 the diseases of this type which occurred most frequently were measles and mumps. Epidemics of cerebrospinal meningitis caused a mortality quite out of proportion to its incidence. The incidence of the "childhood" diseases tended to be highest in men from rural areas, more especially from the South. It is likely, however, that these diseases will be far less frequent in the modern camps than during the last war, because there should be fewer non-immunes among today's draftees. The two chief reasons for this decline in non-immunes are, first, a smaller proportion of young men live in country districts now as compared with 20 years ago and, second, the isolation of rural dwellers has much diminished during this period, largely as a result of the widespread use of the automobile.

The mortality from epidemic cerebrospinal meningitis in the new draft Army will definitely be much lower than that during 1917-1918, because some chemicals of the sulfonamide group have proved effective against the disease. The case fatality in cerebrospinal meningitis before chemotherapy was 25 per cent to 50 per cent even in well-treated groups, but recent general experiences with chemotherapy show case fatality rates in this disease of about 15 per cent. Some observers with small numbers of cases report even better results. Moreover, the case fatality in the age groups affected by the draft is lower than the figure at all ages.

So far as respiratory diseases are concerned, little can safely be predicted. But one great advantage that these young men today have, as compared with draftees of the World War, is that against pneumonia we now have new and powerful agents of cure. Moreover, influenza has been the subject of intensive research since the great pandemic, and only recently vaccines have been developed which bear promise of success against an epidemic of the disease, if it should occur. It is certain also that our Army medical officers will have learned many valuable lessons from our experience of 1917-1918 and will avoid mistakes that were made then. Digestive diseases, which in the past were responsible for a high proportion of disabling illnesses in all armies, should be much less frequent in the new drafted Army. Advances in methods of preservation and refrigeration of foods, as well as the improved dietary of the Army, should bring about this change for the better.

A health hazard which, as on previous occasions, demands serious attention, is venereal disease. But here, too, we may look forward to a better record among draftees who will now serve than among those of 1917-1918. Government leaders, including those in military service, are fully awake to this danger and are bending every effort to meet it. Army officials are showing a very direct interest in the plans for recreational and social activities of the men to be called into service and, in fact, have taken over direct administration and control of these matters within the camps. It is, moreover, a matter of record that the incidence of venereal disease in the regular Army has shown a consistent and satisfactory decline. Various measures have brought this about, among which are instruction in sex hygiene for soldiers, compulsory prophylaxis and periodic inspection of soldiers and, most recently, greater responsibility of the commanding officers themselves for the control of the problem in their own units. The frank and objective attitude of Army authorities to the problem of venereal disease will not be lost on the draftees, and this itself should have permanent value to public health by giving to hundreds of thousands of young men some fundamental information about these diseases and their dangers, and promoting a sane viewpoint toward them.

It should be most assuring to both draftees and their families that the general health record of our Army has been at its best in recent years. The mortality from disease has fallen appreciably. During the five years 1933-1937 the average death rate from disease declined 10 per cent from that of the preceding five year period. The pneumonia death rate fell 13 per cent in this interval and the tuberculosis rate nearly 35 per cent.

In general, the American people can hope for substantial benefits in terms of health as a by-product of the training of the new draft Army. Other countries which have had peace-time conscription over a long period of years have unquestionably profited in terms of sturdier physique for the majority of their male populations. Peace-time conscription is a distinct departure from our traditions, but our people heartily endose it in the present world crisis. It is good to know that the preparations under this emergency, aside from fulfilling their immediate purpose, will confer lasting benefits on the Nation. It is our great hope that these benefits may not be nullified by the crashing down upon us of those very evils which have engulfed the Old World and which the draft is designed to ward off from our country.

Auxiliary News

We had hoped to have Mrs. V. E. Holcombe, President of the Woman's Auxiliary to the American Medical Association, come to Oklahoma some time in January, but she has written that she will be unable to come at this time because of a meeting this month in preparation for the June meeting in Cleveland, Ohio. We are looking forward to having her come some time before the year is over.

In an article, "Why Read the Bulletin?", Mrs. V. E. Holcombe, President of the Woman's Auxiliary to the American Medical Association, explains why each member of the Woman's Auxiliaries over the nation should subscribe and read this publication.

She points out that it serves as a medium for the exchange and interchange of facts, information, knowledge and the proper use of those facilities. Wives may learn new ways of helping their doctor husbands through increased knowledge and understanding of their problems and their duties.

"Legislation is now pending," Mrs. Holcombe goes on to say, "which will vitally affect the whole outlook of the medical profession. The trend of laymen and lay organizations is serious. Doctors' wives can have an influence on such legislation if they know the facts. They have many avenues of contact where they may influence public opinion towards a fair presentation of the actual facts."

As the immediate goal of the auxiliaries is to increase the circulation of the Bulletin to include at least one-fourth of our Auxiliary membership, that means that the Bulletin should have about 6,000 readers and that each auxiliary must send in at least one-fourth of its membership. The quota for Oklahoma is 97 and so far subscriptions total only 28.

On December 3 all ten members of the LeFlore County Auxiliary met at the Hotel Judkins at Forbes. Mrs. Rush Wright, president, addressed the group on the subject "Our Medical Responsibilities." They also discussed the possibility of obtaining more renewals and new subscriptions to "Hygeia."

The Oklahoma County group is finishing up 15 layettes, several of which have already been used where needed greatly, one going to clothe an unexpected twin. The Thanksgiving baskets were given to a needy, deserving family. Mrs. Charles R. Rountree was appointed to represent the Oklahoma County Auxiliary on a newly organized board composed of one member from each civic group which aids the children at the Crippled Children's Hospital.

The December meeting of the Pontotoc County Auxiliary was held in the home of Mrs. C. F. Needham at Ada. This group works one day each month at the Valley View Hospital.

Tulsa Auxiliary met December 3 in the home of Mrs. K. C. Reese with 40 members present. Dr. R. C. Pigford, President of the Tulsa County Medical Society, talked on "Medical Military Preparedness." The group decided to make their giving of subscriptions to "Hygeia" to all Tulsa County schools an annual project. A toy shower for under privileged children ill in Tulsa hospitals was held and the toys were distributed to them Christmas Eve.

The Woodward County group, whose president is Mrs. N. E. Duncan of Forgan, Oklahoma, are certainly to be commended for their enthusiasm and cooperation. Their membership is made up of doctors' wives from several of the western counties, and sometimes they have to travel as far as 140 miles to the place of meeting. They meet at the same time and place that their husbands do, having dinner together and then separate for their respective business meetings. If the doctors have a particularly interesting program, the ladies attend that, and carry on their Auxiliary work through committees. They are doing good work through their public relations committee throughout their district.

• *OBITUARIES* •

Robert Erle Evans
(1909-1940)

A highway collision the morning of December 31, 1940 brought an abrupt end to the short but highly promising career of Robert Erle Evans, 31, former practising physician at Ada, who was on his way to Fort Sill, Lawton to complete his examinations for active duty as a reserve officer there. He died shortly afterward of injuries sustained.

Doctor Evans was born at Hugo, Oklahoma, August 27, 1909 and attended grade and high school in that city. He later enrolled at the University of Oklahoma School of Medicine where he received his doctor's degree in 1934 and spent the next 12 months in a rotating internship at Mercy Hospital, Council Bluffs, Iowa. After completing his internship, Dr. Evans practised three months at Oakland, Iowa and entered the employment of the federal government as a contract surgeon at a CCC camp at Hope, Arkansas.

On January 1, 1937 he entered private practice in Ada. Following post graduate work in 1939 in Harvard University at Boston, Mass., Dr. Evans returned in August of that year to join in the formation of the Lewis-Evans Clinic and only a little over a month ago, this group moved into their new clinic building. On December 30, 1940 Dr. Evans was called to active duty as a reserve officer and because of the illness of his wife, drove back to Ada for that night. In returning to Fort Sill to complete his examinations, he was involved in the car-truck collision which resulted in his death.

Immediate survivors are the widow and Dr. Evans' parents, Mr. and Mrs. R. L. Evans, Hugo.

The members of the Pontotoc County Medical Society have written a tribute to Dr. Evans which follows:

"The passing of Dr. Robert Erle Evans at the early age of 31 years has removed from our membership, association and daily contacts, a gentleman of the highest degree in honesty, integrity, ethics and ideals. In the three years that he lived among us, Dr. Evans has held the positions of President and Vice-President of our Pontotoc County Medical Society and was elected to the office of Trustee at the time of his death. His keen intellect and frank opinion in consultation and in the proceedings of our organization will long be remembered and will be greatly missed in the future. In this member, we had early recognized that suffering humanity was given first consideration and individual gain was incidental to the welfare of his clientele. It is from associations such as these that we gain our ideals in life, and it is the desire of this society to express our appreciation of Dr. Evans along with our respect, regrets, admiration and sympathy to his wife and loved ones.

In appreciation of these fine qualities and the friendships which we enjoyed with this member, the Pontotoc County Medical Society desires to express its sorrow and sympathy, collectively and individually, and that this expression be made known to the family, the State Medical Association and to become a part of the records of this Society."

Committee: Robert E. Cowling, M.D.
Clarence F. Needham, M.D.
Miles L. Lewis, M.D.

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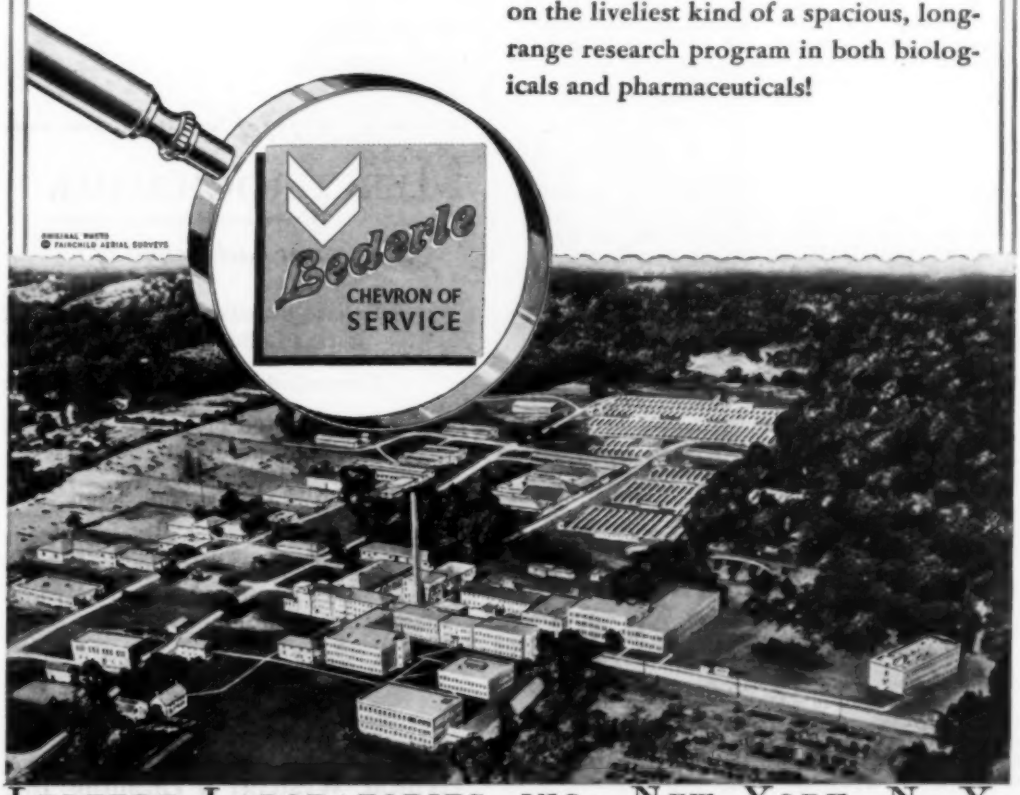

LEDERLE LABORATORIES, INC., NEW YORK, N. Y.

New Scientific Section Approved By Council Members

On the petition of 25 members of the Association, a new scientific section has been approved by the Council of the State Association. This new section will be known as the Section on Neurology, Psychiatry and Endocrinology.

Dr. D. W. Griffin, Norman, has been elected chairman; Dr. Harry Wilkins, Oklahoma City, vice chairman; and Dr. Coyne Campbell, Oklahoma City, secretary.

The officers have announced that a full program will be held at the next annual meeting of the Association. Anyone interested in the work of the section should communicate with its secretary, Doctor Campbell.

News From The State Health Department

The most complete public health program ever known in Oklahoma was carried out during the year 1940 by the State Health department.

The department ranked foremost among similar organizations throughout the nation for its rapid growth and progress along lines of preventive medicine.

The number of local, full time county health departments increased; new services were added; personnel and equipment was increased; closer cooperation with the medical profession was obtained and the methods of public health procedure were improved. The number of county departments increased from 29 to 37, including Bryan, Caddo, Comanche, Creek, Logan, Johnston, Roger Mills and McClain counties.

Provisions of the Selective Service Act gave a tremendous impetus to the program for control of venereal diseases. Although it began operation only during the last two months of the year, the national defense program caused nearly 12,000 specimens to be examined in the laboratory for syphilis. The syphilis incidence proved to be that normally found, averaging close to five per cent.

In addition to this work, the health department's program for control of venereal diseases showed steady progress. The number of clinics for treatment of indigent patients was increased from 55 to 62 and the number of patients increased from 3,000 to 5,341. Practicing physicians of the state did much of the work in these clinics, being paid from federal funds at established prices.

That the medical profession is using the state health department laboratory as an aid in controlling disease was amply demonstrated during the past year. The number of specimens submitted reached an all-time high, as did the amount of vaccines, toxoids and drugs manufactured for use of public health workers and the medical profession. The per centage of increase in work of the laboratory figured close to 35 per cent.

Several new services were added, including a division of industrial hygiene; an additional traveling unit for the dental division; and additional x-ray machine for diagnosis of tuberculosis and a traveling laboratory for use in determination of stream pollution and safety of municipal water supplies and sewage disposal plants.

Health conditions in Oklahoma improved during the year, with deaths from communicable diseases decreasing and the maternal and infant death rates showing a definite decline.

"The program improving health in Oklahoma is progressing in satisfactory manner, primarily because of the interest and cooperation of the medical profession, the support of local governmental agencies and improved methods of practicing public health," Dr. G. F. Mathews, commissioner, commented.

The first 1941 refresher course for physicians of Oklahoma began early in January with indications pointing to genuine interest throughout the state.

The course is being sponsored jointly by the Oklahoma State Medical association and the Oklahoma State Health department.

Dr. James G. Hughes of Memphis, Tennessee, is the lecturer for the course in pediatrics. Doctor Hughes will speak before the county medical societies in most counties of the state and all physicians are invited to attend.

A similar venture was successfully undertaken last year when Dr. Edward N. Smith conducted a course in obstetrics.

Oklahoma had 443 reported deaths from influenza during the year 1940, according to records of the State Health department.

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MEDICAL PREPAREDNESS

254 Doctors Asked to Send In Questionaires

The American Medical Association has requested the Medical Preparedness Committee of the Association to make every effort possible to complete the Preparedness schedules for all doctors in Oklahoma by February 1.

Every person with a medical degree is expected to fill out the schedule regardless of age, physical condition and whether or not he is in active practise.

This is a final appeal before making a personal canvass, which would be an added expense to your Association. Many of your colleagues are devoting hours each day to our Government; surely you can do your part by giving a few minutes of your time to filling in the questionnaire and returning it to 210 Plaza Court, Oklahoma City.

The following list gives the number of doctors in each county who have not yet returned a schedule and the local County Preparedness chairman. Should you believe you might be one of these in your county, contact your local chairman and he can advise you as to whether or not your name is on the list and if so, provide you with a schedule.

County	Number	Chairman
Adair	4	
Alfalfa	5	L. T. Lancaster, Cherokee
Beaver	4	
Beckham	2	E. S. Kilpatrick, Elk City
Blaine	1	A. K. Cox, Watonga
Bryan	1	R. E. Sawyer, Durant
Caddo	13	Odis A. Cook, Anadarko
Carter	2	F. W. Broadway, Ardmore
Cherokee	1	J. S. Allison, Tahlequah
Choctaw	1	E. A. Johnson, Hugo
Cimarron	2	
Cleveland	1	W. T. Mayfield, Norman
Coal	1	J. S. Fulton, Atoka
Comanche	18	Fred W. Hammond, Lawton
Craig	1	Paul G. Sanger, Vinita
Creek	3	G. C. Croston, Sapulpa
Custer	1	McLain Rogers, Clinton
Delaware	2	
Dewey	2	
Ellis	3	
Garfield	5	J. R. Walker, Enid
Garvin	3	John R. Callaway, Pauls Valley
Grady	5	L. E. Woods, Chickasha
Grant	1	E. E. Lawson, Medford
Harmon	1	S. W. Hopkins, Hollis
Harper	2	
Haskell	3	
Hughes	3	A. L. Davenport, Holdenville
Jackson	2	E. S. Crow, Olustee
Johnston	5	
Kay	11	L. H. Becker, Blackwell
Kiowa	5	B. H. Watkins, Hobart
Latimer	2	
Love	3	
LeFlore	2	
Logan	4	W. C. Miller, Guthrie
Major	1	
Marshall	2	J. L. Holland, Madill
McCurtain	7	W. B. McCaskill, Idabel
McIntosh	3	D. E. Little, Eufaula
Murray	5	Paul V. Annadown, Sulphur
Muskogee	10	H. T. Ballantine, Muskogee
Noble	2	T. F. Renfrow, Billings
Nowata	1	J. V. Athey, Bartlesville
Okfuskee	6	A. S. Melton, Okemah
Oklahoma	38	Horace Reed, 1200 N. Walker Okla. City
Okmulgee	1	R. L. Alexander, Okmulgee
Osage	5	C. H. Guild, Shidler
Ottawa	4	F. L. Wormington, Miami
Payne	2	Stillwater, R. E. Waggoner
Pittsburg	1	R. K. Pemberton, McAlester
Pontotoc	1	M. M. Webster, Ada
Pushmataha	1	D. W. Connally, Antlers
Sequoyah	5	
Seminole	14	N. W. Mills, Seminole
Stephens	1	W. S. Ivy, Duncan
Tillman	1	James D. Osborn, Frederick
Tulsa	13	James L. Miner, Medical Arts Bldg., Tulsa
Wagoner	3	J. H. Plunkett, Wagoner
Woodward	2	John L. Day, Supply

Information From Questionnaires Transferred to Cards

The American Medical Association's committee on medical preparedness announces that on Dec. 19, 136,727 physicians had returned their schedules to committee headquarters.

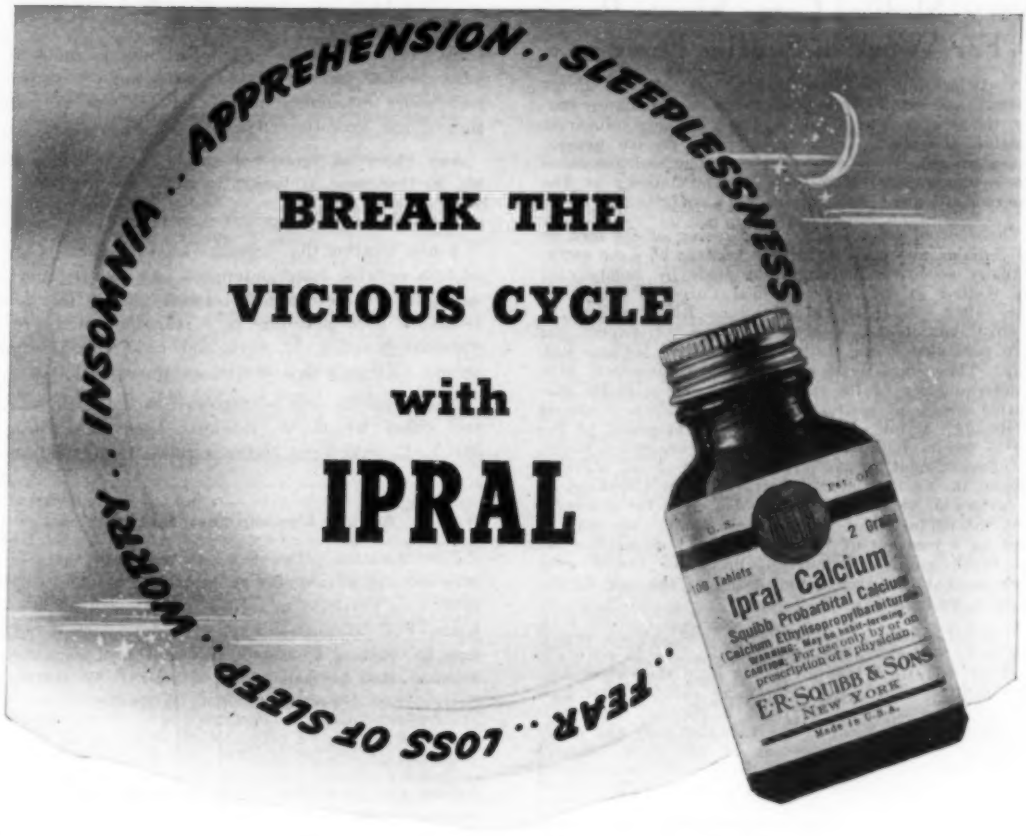
The information on the returned schedules is being transferred to punch cards as rapidly as possible. On December 18, 108,000 schedules had been prepared for punch card operators. The first transfer of selected information from punch cards to listing sheets was completed in November for the first 47,000 cards punched

If the Committee on Medical Preparedness is to provide the Surgeon Generals of the Army, Navy and Public Health Service with complete and reliable information concerning the number, location, age, qualifications and availability of medical personnel, when requested, it must have a punch card for every known Doctor of Medicine in the United States.

During the next three weeks, a drive by the Association's committee will be made to complete the schedule on those doctors in Oklahoma who the American Medical Association's records show as not being on file. Since this is a patriotic move on the part of the doctors of medicine in the United States, it is sincerely hoped that complete cooperation will be given by those contacted.

It may be that many of those who, according to the American Medical Association records, have not completed their schedules will be of the opinion that they have completed and mailed their questionnaires but since in the filing of these, some may have been inadvertently mislaid or lost in the mail, those contacted should cooperate with the committee by filling out a duplicate. One change has been made in the method of the committee pertaining to the schedules. In the future schedules should be mailed back to the office of the Oklahoma State Medical Association rather than to the American Medical Association.

Although no deadline has been set in which all schedules should be in the committee's hands, it is believed that in most instances, the work should be completed by Feb. 1.



THE FEAR of the consequences of illness or of operative procedure may result in insomnia and rob the patient of needed rest. Failure to obtain sleep may increase anxiety until it seems that life itself is threatened. The use of a safe, effective sedative for a few nights will often enable such a patient to obtain needed sleep.

To assure patients of a sound restful sleep closely resembling the normal, many physicians prescribe Ipral Calcium—a dialkyl barbiturate. The action of Ipral Calcium is classified between preparations of rather prolonged action and those of relatively brief effect. As a sedative and in cases of ordinary sleeplessness, one or two 2-gr. Ipral Calcium tablets are usually sufficient to induce a 6 to 8 hours' sleep from which the patient awakens generally calm and refreshed.

Ipral Calcium is readily absorbed and rapidly eliminated and undesirable cumulative effects are easily avoided by proper dosage regulation. Even in larger therapeutic doses the effect on heart, circulation and blood pressure is negligible.

IPRAL CALCIUM (calcium ethylisopropylbarbiturate), for use as a sedative and hypnotic, is supplied in 2 gr. and in ¾ gr. tablets and also in powder form.

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Navy Medical Corps Merits Praise For Work in Squalus Disaster

A declaration that the three Navy Medical Corps officers and the Hospital Corpsmen in attendance during the rescue operations involved in the submarine Squalus disaster in 1939 should also receive governmental awards which were given nonmedical personnel was made in the Dec. 7 issue of The Journal of The American Medical Association.

The Journal pointed out, "The saving of the men on the Squalus was possible largely because of some extraordinary scientific investigations made by members of the United States Navy Medical Corps in the years since 1932. In those investigations Lieut. Albert R. Behnke contributed notably. A series of papers has been published in the United States Naval Medical Bulletin. These investigations, which are concerned with a determination of the cause of accidents with the submarine escape apparatus, the narcotic (sleep or stupor producing) action of nitrogen, the development of the use of helium, improvements in the decompression tables, the development of an effective method of utilizing oxygen in the treatment of air embolism (blocking of an artery or vein by an air bubble) and the discovery that the diffusion of helium through the skin may be used as a measure of peripheral (skin) circulation are all fundamental contributions, on which rescue work such as that involved in the saving of the men on the Squalus must be based.

"Significantly, in all of these investigations, involving more than 25 individual contributions to scientific medical literature, the physicians have themselves submitted to various tests before any enlisted men were permitted to volunteer for such a purpose. The value of their work is shown by the fact that only two minor cases of bends developed out of 640 dives, whereas bends occurred almost daily in previous rescue work even though the depths were much less.

"The story of the salvaging operations on the U. S. S. Squalus was published in the United States Naval Medical Bulletin for Oct. 1939. The Squalus disaster provided a crucial test for the preparation which Navy medical officers had made over a long period of time. The medical discoveries already mentioned were supplemented by some engineering innovations involving the fabrication of fireproof, electrically heated garments for cold-water diving, improved recirculation of gas through the diver's helmet and the perfection of telephone communication. Indeed, these also were medical as well as engineering problems before they were finally perfected by the engineers. It was found that diving in semidarkness to a depth of 240 feet for the purpose of tunneling under the submarine and attaching hoses was too dangerous when divers breathed air. The accumulation of carbon dioxide and nitrogen narcosis (unconsciousness) impaired neuromuscular (nerve and muscle) coordination to such an extent that simple tasks could be carried out only with great difficulty. The substitution of helium for nitrogen in the air minimizes the narcotic symptoms associated with air breathing under pressure. Substitution of oxygen for air or a helium-oxygen mixture in the lungs allows excess nitrogen or helium gas to diffuse from the body at a maximum pressure head."

In conclusion, The Journal comments that "The reticence of the medical profession in seeking rewards for such service is proverbial. In this instance, when the attention of all the world was focused on the plight of the men who sank in the Squalus, when it is recognized that only years of preliminary efforts on the part of medical investigators in the United States Navy made possible the salvaging of those who were saved, when it is recognized that these men in person and the Hospital Corpsmen who were associated with them were in attendance on the actual salvaging operation, neglect to give them the type of special award given to the nonmedical personnel is so evident as to demand this statement.

"Organizations which know how to impress their opinions on governmental officials might well adopt official actions to indicate their belief in the justice of the claims of these men to governmental recognition."

Opportunities for Practice

An excellent location and opportunity to build up a good practise for a graduate who is not yet settled in some other community has been brought to the attention of the Executive Office of the Association.

Any physician interested should get in touch with Mr. E. D. Spears, Hulbert.

A nice location that promises a good income is offered to a suitable doctor interested in a country practise. According to word which reached this office, collections are good and this is a real opportunity for a physician wanting to work and make a comfortable income. Offices with a dentist are available.

Any physician who is interested should write or contact either Mr. G. W. Edwards, Leedy, Oklahoma or Mr. F. R. Gale, First National Bank, Leedy, Oklahoma.

Add to Opportunities for Practice

The executive office has received word there is an excellent opportunity for at least eight months' employment as a physician to a construction company in Oklahoma. Full information relating to duties and the salary may be obtained upon application. Any physician interested is asked to communicate with Dr. F. W. Hammond, Suite 322½ C Avenue, Lawton, Oklahoma.

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New Periodical on Medicine Will Be Published

"Beginning in January, the American Medical Association will publish a new periodical: 'War Medicine,' as a part of its contribution to the preparedness program," The Journal of the Association announces in its Dec. 14 issue.

"The editorial board of the publication will be the Committee on Information of the Division of Medical Sciences of the National Research Council. This committee includes Dr. Morris Fishbein, Editor of The Journal, as chairman, and the following associate editors: Mr. J. R. Bloomfield and Drs. John F. Fulton, Richard M. Hewitt, Ira, V. Hiscock, Sanford V. Larkey and Robert N. Nye. In order to have direct cooperation with the governmental services, the following representatives of the Army and Navy Medical Corps and the United States Public Health Service have been chosen to cooperate with this editorial board: Col. C. C. Hillman, Com. Charles S. Stephenson and Dr. R. R. Spencer.

"The Division of Medical Sciences of the National Research Council has developed a number of scientific committees which are actively at work preparing reports of various phases of medical service under military conditions. These official documents will be available to the new periodical for prompt publication. Already reports on chemotherapy (chemical treatment), the standardization of the treatment of pneumonia, numerous problems concerned with medicine in aviation, peripheral nerve (other than the spine and brain) injuries, wound treatment, gas gangrene and similar subjects are being made available.

"The American Medical Association, through its Committee on Medical Preparedness, is concerning itself with all the questions of personnel for preparedness and for military service. The official reports of this committee will also appear in the new periodical as well as special considerations that are given to economic and social problems of the medical profession in relationship to the emergency. Of especial importance also are the reports of official committees of the American Medical Association, such as the Council on Medical Education and Hospitals, the Council on Industrial Health and similar groups which will also be concerned with these problems.

"Finally, much material is being developed by the Coordinating Committee on Medicine and Health of the Council on National Defense and by many other governmental agencies which are considering the national nutrition, the provision of hospital services and similar questions closely related to preparedness and defense.

"The new publication will appear as a bimonthly. The Board of Trustees of the American Medical Association, which has authorized its publication, has established a price of $5 annually for the subscription. The periodical should be useful not only to the government services, which have indicated their wish to subscribe to this periodical for the official departments, but also to libraries and to individual physicians."

Annual Forum on Allergy Meets

Physicians from over the United States met the 11th and 12th of this month in Indianapolis, Ind., for the Third Annual Forum on Allergy. Topics presented were those chosen by physicians present at the Chicago meeting the preceding year.

The meeting included study groups; a symposium on bronchial asthma, B. Z. Rappaport, M. D., Chicago, moderator; a symposium on allergic headaches, Theodore Squire, M. D., Milwaukee, moderator; a symposium on insects as allergens, Harry Huber, M. D., Chicago; question and answer periods; and the annual smoker with informal discussion and demonstrations.

Special lectures were: "Allergic Manifestations in the Eye" Albert D. Ruedemann, M. D., Cleveland Clinic; the annual forum lecture, "Allergy, Hypersensitiveness and Immunity," Dr. Bela Schick, N. Y.; and "Water and Electrolyte Metabolism in Allergy," M. M. Cook, M. D., St. Louis.

Announcement of Van Meter Prize Award

The American Association for the Study of Goiter again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held at Boston, Massachusetts May 26th, 27th and 28th, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy sent to the Corresponding Secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania not later than April 1st.

The Committee, who will review the manuscripts, is composed of men well qualified to judge the merits of the competing essays. Dr. Brien T. King of Seattle, Washington received the Award for the year 1940 in recognition of his essay entitled "A New and Function-Restoring Operation for Bilateral Abductor Cord Paralysis."

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association. This will not prevent its further publication, however, in any journal selected by the author.

DR. WHITE'S SANITARIUM

NERVOUS AND MENTAL DISORDERS; ALCOHOLISM AND DRUG ADDICTIONS

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BOOK REVIEWS

"The chief glory of every people arises from its authors."—Dr. Samuel Johnson.

METHODS OF TREATMENT, By Logan Clendenning, M. D., Clinical Professor of Medicine, Medical Department of the University of Kansas; Attending Physician, University of Kansas Hospitals and Edward H. Hashinger, A.B., M.D., Clinical Professor of Medicine Department of the University of Kansas; Attending Physician, University of Kansas Hospitals; Attending Physician, St. Luke's Hospital, Kansas City, Mo. With Chapters on Special Subjects by J. B. Cowherd, M.D.; Leland F. Glaser, M.D.; Thomas B. Hall, M.D.; John S. Knight, M.D.; H. P. Kuhn, M.D.; Paul H. Lorhan, M.D.; F. C. Neff, M.D.; Don Carlos Peete, M.D.; Carl O. Rickter, M.D.; E. H. Skinner, M.D.; O. R. Withers, M.D.; and Lawrence E. Wood, M.D. Seventh Edition. St. Louis, The C. V. Mosby Company. 1941.

This is the seventh edition of this work which speaks for its popularity and this revised edition is brought up to date. Many subjects have been completely rewritten, such as intestinal parasites, extracts of ductless glands, vitamins, allergy, and several other subjects. Many new drugs are considered such as coramine, heparin, benzedrine, dilantin and many of the endocrine products.

This book maintains its usual attractive style and as the former editions have been popular this edition will certainly remain.

A TREATISE ON MEDICOLEGAL OPHTHALMOLOGY, By Albert C. Snell, M.D. Lecturer in Ophthalmology, School of Medicine and Dentristry, University of Rochester; Consultant in Ophthalmology, Strong Memorial Hospital, and Rochester General Hospital; Ophthalmologist, Park Avenue Hospital, Rochester, New York; Member of the American Ophthalmological Society; Fellow of the American College of Surgeons, the American Medical Association, and the American Academy of Ophthalmology and Otolaryngology. Illustrated. St. Louis. The C. V. Mosby Company. 1940.

Since 1902 there has not been published in book form any complete treatise on visual economics. Neither is there any book which deals extensively with medico-legal ophthalmology. Consequently this work will be very acceptable to those interested in this subject. The first part of the book deals with medical jurisprudence and analysis of compensation laws so related to visual disability. Part two deals with the valuation of these disabilities, and part three with practicalibility of the visual efficiency computation to medicolegal practice. The subject seems to be thoroughly covered in this book.

PHYSICAL DIAGNOSIS BY ELMER AND ROSE, Revised by Harry Walker, M.D., F.A.C.P., Associate Professor of Medicine, Medical College of Virginia, Richmond, Va. With 295 illustrations. Eighth Edition. St. Louis. The C. V. Mosby Company. 940.

This is the eighth edition of this work and carries out practically the same general plan as the former edition. Part one is on the technique of physical examination and normal physical diagnosis while part two deals with the physical diagnosis of disease and it is so divided into forty seven chapters that ready reference is obtainable.

This is a standard work and the new edition will be received with pleasure by the profession.

BELLEVUE, By Lorraine Maynard, in collaboration with Laurence Miscall, M.D. Pp. 280. New York: Julian Messner, Inc., 1940.

Here is a very readable book about the world's most interesting hospital. While it was written primarily for the layman, it contains much that the average doctor should know. It is not only of historical interest, but contains many interesting episodes, driving home the importance of the art of medicine. The modern methods and techniques stand in striking contrast to the procedures in vogue 50 to 100 years ago. The book makes plain the varied duties of interns and nurses, and the wide scope of knowledge demanded of them today.

There is a wealth of human interest stories which not only show "how the other half live," but how disease and catastrophy bring to light the devious ways of human derelicts. The evil effects of compensation laws upon certain individuals are clearly revealed through the inscrutable psychological reactions of the patient and the doctor's inability to interpret subjective symptoms without qualification.

The evil possibilities of socialized medicine are referred to and the varied advantages of any great charity hospital not under bureaucratic control are pointed out. It serves not only as a haven for the poor, but a protection to all classes and as a means of practical training for doctors and nurses.

Throughout the book the reader will find a refreshing blend of comedy and tragedy, characteristic of life, so colorful and complex, when touched by afflicition.

The historical background against which the present efficient service stands in bold relief, shows how bureaucratic domination hampered the functions of a great institution and retarded progress. A book you should read and pass on to your patients and friends.

PSYCHOBIOLOGY AND PSYCHIATRY, A Textbook of Normal and Abnormal Human Behavior. By Wendell Muncie, M.D., Associate Professor of Psychiatry, Johns Hopkins University; Assistant Psychiatrist, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital. With a Foreword by Adolf Meyer, M.D., LL.D., Sc.D., Henry Phipps Professor of Psychiatry and Director of the Department of Psychiatry, Johns Hopkins University. With 69 illustrations. The C. V. Mosby Company. 1939.

This book covers the conceptions, teachings and working methods of the Henry Phipps Psychiatric Clinic at the Johns Hopkins Hospital.

The text is aimed primarily for the use of students but will certainly be of marked interest to the neuropsychiatrist. The author was associated with Dr. Adolf Meyer and has carried out in the text the teachings of his preceptor.

Medical Education Congress Date Set

The Thirty-Seventh Annual Congress on Medical Education and Licensure, conducted under the auspices of the Council on Medical Education and Hospitals of the American Medical Association, will be held at the Palmer House, Chicago, Feb. 17 and 18, *The Journal* of the Association announces in its Nov. 9 issue. During the Congress special consideration will be given to the relationship of the medical profession to national defense.

ABSTRACTS : REVIEWS : COMMENTS and CORRESPONDENCE

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments From
LeRoy Long Clinic
714 Medical Arts Building, Oklahoma City

"Venom in the Treatment of Arthritis, Arthralgia, Neuritis and Allied Affections." By Paul Butler, M.D., Orlando, Florida. The Journal of the International College of Surgeons, August 1940, Volume III, Number 4, page 357.

It has been recently shown that cobra venom has a higher analgesic action than morphine in many people, and it has thus been assumed that cobra venom has a greater analgesic value than any other zootoxin. The author states that there are several snakes whose venoms have a greater analgesic effect than that of the cobra.

The author has used a concentrated and purified solution of copperhead venom in his experiments. The venom is obtained from freshly captured snakes. Snakes long in captivity cannot produce good quality venom.

The venom is always given intradermally, as it is essential that it be absorbed into the vascular system as slowly as possible.

The author states that he has obtained material benefit in 90 per cent of his cases; symptomatic cures in 85 per cent of the cases; and demonstrable cures in 66 per cent of all cases. In this article he presented 25 typical cases, 2 of which were herpes zoster with good results in all cases.

Comment: This report sounds too good to be true, but we have seen some wonderful results from the use of cobra venom for the relief of intractable pain, so we have an open mind concerning this author's good results. Any form of medication which will relieve the pain of an old person with chronic arthritis or neuritis should certainly be given due consideration.

Warren Poole.

"Pilonidal Sinus." By C. M. Burgess, M.D. Honolulu, T. H. Western Journal of Surgery Obstetrics and Gynecology, September 1940, Volume 48, No. 9, page 581.

The author presents the theory of Gage as the most practical theory concerning the primitive origin of pilonidal cysts and sinuses. According to this theory, there are two primordial tissues responsible for the clinical pilonidal cyst. The first, the forerunner of the dimple or dimple sinus, is derived from anomalous development of the caudal ligament and its attachments to the skin. The second, the forerunner of the cyst, is derived from the caudal end of the neural canal. The epithelial lining of the cyst may contain hair follicles, but this follicle bearing tissue gradually changes to tissue that contain neuroglia cells as the dura is approached.

The author has treated 14 cases in 1938 and 1939 in per cent of all newborn infants have some malformation of the skin in the sacrococcygeal area, and that 3 to 4 per cent of these congenital anomalies go on to produce signs and symptoms which cause them to ultimately seek treatment. It is the complications of pilonidal sinuses and cysts, and not the lesion per se that causes the patient to seek treatment.

The primary objective of any form of treatment is to cure the patient permanently in as short a time as possible. The treatment proposed by the author is as follows: When first seen the abscess is incised and the patient told to return in two or three weeks or after there is no tenderness or soreness, for his operation. Spinal anesthesia is used. A minimum amount of normal tissue is removed surrounding the cyst, the buttocks being held apart to insure adequate exposure. The skin margins are undermined. Silk is used throughout. The dead space is obliterated by using compression bandages and by strapping the buttocks together. The patient is placed in a prone position for the first 48 hours after the operation to prevent infection from the anus by perspiration.

The author has treated 14 cases in 1938 and 1939 in the above manner with an average healing time of 8.8 days. His last three cases were healed in 5.3 days. There have been no recurrences.

Warren Poole.

"Cause of Death in Cases of Mechanical Intestinal Obstruction. Consideration of Certain Confused Issues and Review of Recent Literature." By Edward L. Besser, M.D., Iowa City. Archives of Surgery, October 1940, Volume 41, Number 4, Page 970.

A study of the literature on the cause of death in cases of intestinal obstruction shows confusion and conflicting opinions concerning many phases of the problem.

In most instances of clinical obstruction and in the various types of experimental obstruction, death occurs before gross perforation of the intestine has taken place, and under these circumstances the cause of death cannot be satisfactorily explained by the autopsy.

The course has been described as that of "toxemia," and for many years it was generally accepted that the cause of death from all types of obstruction was the absorption of some toxic substance from the gastrointestinal tract. However, recent studies have suggested that different types of obstruction may cause death by different mechanisms.

The author's general summary of this paper is as follows: "Attention is called to the fact that different physiologic and pathologic alterations take place under the conditions of different types of intestinal obstruction. The preponderance of evidence suggests that death in cases of high obstruction is due to the loss to the body of the secretions of the upper part of the intestine, the essential constituents being water and sodium chloride. Support for this contention is found in the fact that life can be markedly prolonged by replacement of these substances and only these substances. Experiments in which the intestinal secretions were short circuited around the obstruction substantiate this postulate, as does the fact that high intestinal fistulas cause a similar picture and respond in a similar manner.

In the presence of low intestinal obstruction there is opportunity for reabsorption, and, although dehydration and electrolytic loss may explain death in some instances, these factors do not seem adequate to explain death in the majority of instances. The general concensus is that death occurs as the result of absorption of toxic materials. Many investigators have contended that toxic absorption does not take place until there are definite microscopic changes in the intestinal mucosa. However, others have felt that selective absorption of the mucosa may be altered before visible evidence of pathologic alteration takes place. Recent studies have been reported,

indicating that death in cases of low ileal obstruction occurs in the absence of marked changes in the intestinal mucosa. It has been suggested that electrolyte loss and dehydration may have been factors in the instances in which mucosal changes were not evident, although this has not been definitely established. The majority of experiments support the contention that there is no transperitoneal absorption or "Direct permeation" of the intestinal wall as long as it is viable. Increased intraintestinal pressure tends to decrease absorption of substances normally absorbed by the intestine and has not been shown to cause absorption of most substances that are not normally absorbed. However, a few recent experiments have shown that increased intraintestinal pressures were associated with abnormal absorption of Cl. botulinum toxin in dogs and of horse serum in guinea pigs. Lymphatic absorption is increased in the presence of obstruction, and certain dyes that are not normally absorbed are absorbed by the lymphatics under the conditions of obstruction. There is no conclusive proof that absorption of a lethally toxic material occurs by this route. In general there is no satisfactorily substantiated evidence of toxic materials in the body fluids in cases of low ileal obstruction. Animals with low ileal obstruction die in a state of "shock." There is a decrease in blood and plasma volume which is certainly of some consequence, but the precise role that these factors play is not definitely known.

Recent experiments have shown that normal intestinal contents may be as toxic as obstructed contents, or more toxic. The normal combined pancreaticoduodenal secretion per se is highly toxic. Although the nature and origin of the toxic material in obstructed contents is not clear, reasons are given for the belief that the pancreaticoduodenal secretions play a secondary role in respect to the toxicity of the material collected above a low obstruction. The preponderance of evidence suggests that the toxicity of this material is dependent on bacterial activity, and, although multiple toxins may be involved, part of the toxicity seems to be caused by the presence of histamine or a closely allied substance.

In strangulations of long loops the preponderance of evidence shows that the fluid loss per se may be great enough to cause death. However, with short loops and with death occurring before perforation, the fatal issue is probably due to absorption of a toxic material which is formed by the action of bacteria on the nonviable tissues of the intestinal wall. Although some experiments have been cited in which the peritoneal fluid was reported not to be toxic, a number of investigators have found toxic material in the peritoneal transudates. The nature of these transudates and their degree of toxicity have been variable. Histamine and comparable substances have been found in these transudates and cause depressor effects on blood pressure. No one substance has been proved sufficient in itself to cause death."

Comment: The author has made an exhaustive study of this moot question. His conclusions, in light of present knowledge, are logical and are probably accepted by most of us who have been intensely interested in the question as to what is usually the immediate cause of death in patients who have mechanical intestinal obstruction.

LeRoy D. Long.

EYE, EAR, NOSE AND THROAT

Edited by Marvin D. Henley, M. D.
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"Temporary Myopia Due to Sulfanilamide." J. H. Bristow, M.D., Monroe, Wisconsin. Archives of Ophthalmology, October, 1940.

This is a case report of an individual whose visual acuity was reduced in a space of a few hours from 20/15 to 20/300. This is a startling occurrence, to both physician and patient. The usual ocular manifestations of sulfanilamide toxicity are inflammatory reactions to the lids and conjunctiva. In the case reported the pathologic process was undoubtedly an edema of the lens, producing a myopic eye.

This is a case of a lady whose chief complaint was frequent and burning urination; cystitis her first attack; white, age 21, weight 120 pounds. Fifteen grains of sulfanilamide was given every six hours. Forty-eight hours later her urinary symptoms had subsided but she complained of malaise. She was instructed to continue the medication for 48 hours and return. On her return the urinalysis was negative and the sulfanilamide was discontinued. Three days later she complained of numbness and tingling of the feet and insomnia; W.B.C. 2,550; urine normal. Two days later W.B.C. was 5,550. About three weeks later the cystitis recurred; W.B.C. at this time was 7,350. Due to the fact that she had experienced some untoward symptoms with sulfanilamide, she was put on 10 grains of neoprontosil every six hours. She took six tablets. The next morning she had nausea and dizziness, lassitude and blurring of distant vision.

Ophthalmoscopic examination at this time was essentially negative. Visual acuity was 20/300 ou. V.O.D.—2.00-50ax90 gave 20/15. V.O.S.—3.00-25ax145 gave 20/15. There was not any muscle imbalance. Cycloplegic and manifest were identical. Two days later she was seen again; W.B.C. 6,400; 24 hours later W.B.C. 3,250. Three days later the cystitis had disappeared. A little over two weeks later the W.B.C. was 4,050 and her visual acuity was 20/15 ou. She has been seen several times since and no permanent damage appears to have been done.

"Ophthalmoplegic Migraine." Alfred J. Elliott, M.D., New York, N. Y. Original Paper in the Canadian Medical Association Journal, September, 1940; pp: 242-244. This abstract published in the November Issue of the Digest of Ophthalmology and Otolaryngology.

In 1890 Charcot defined the term, ophthalmoplegic migraine, as a condition associated with migraine in which there is a palsy of an ocular nerve, usually the third, which is temporary at first but later becomes permanent. The disease is apparently rare in general medical practice. In an analysis of 29 cases of ophthalmoplegic migraine appearing in the literature Moebius states that only 4 presented a history of headache in any other member of the family.

Moebius draws attention to the fact that the pain of ophthalmoplegic migraine is usually felt deeply behind the eye, in the eye itself, or just over the eye. The pain is not a true neuralgia. It is almost uniformly confined to one side of the head, and usually appears on the same side of the head as the ophthalmoplegia, although occasionally the headache is bilateral. If the headache continues for any length of time, nausea and vomiting regularly make their appearance. Dizziness may be associated with the headache. The headache usually precedes the onset of the extra-ocular muscle paralysis, the latter coinciding with the subsidence of the headache, or, more rarely, from one to ten days after the cessation of the headache.

Various combinations of disturbances in the third, fourth, and sixth cerebral nerves may be demonstrated. Occasionally all of them may be involved, presenting a complete external ophthalmoplegia. When these disturbances affect the third cerebral nerve the paralysis may involve both the internal and external musculature with all of the accompanying symptoms. The internal musculature may alone be involved, the change resulting in difference in size of the pupil and loss of accommodation.

Involvement of the centres for convergence and divergence has been described by various authors, the re-

sulting diplopia appearing either on the attempt to look at objects close or at a distance.

It is usual for the paralysis to pass off in the earlier attacks, but gradually the condition becomes permanent. The period of involvement persists from a few days to many months. With the continued recurrence of the ophthalmoplegic attacks, the duration of the weakness tends to increase, and residual disurbances of greater or less extent continue into the period between the attacks. With frequently repeated recurrences certain muscles may become permanently paralyzed.

The usual visual disturbances of migrain may occur. Homonymous field defects are common. In unusual instances the scotoma or the hemianopsia may persist for several weeks or may, in extreme cases become permanent.

Theories For The Causation of Ophthalmoplegic Migraine:

Hypophyseal Theory—This theory is based upon the occurrence of transitory swelling of the hypophysis cerebri, a type of angioneurotic edema. Such swellings may be sufficient to produce pressure on the cavernous sinus and the nerves connected with it, thus producing the symptoms and signs characteristic of the ophthalmoplegic and ophthalmic types of migraine.

Vasomotor Theory—The theory that vasomotor changes are responsible has much to be said in its favor. Vasomotor changes are transient. They usually leave, at least at first, no residual damage in other parts of the body, and yet it is true that trophic or nutritive damage of a permanent sort may be done by vasomotor changes. Tzanck assumed that migrainous headache arises from spasm of the cranial arteries following excessive autonomic nerve excitation.

Treatment—Tzanck advocated the use of ergotamine tartrate, an alkaloid of ergot. In simple migraine he stated the headache was relieved. He advised the use of 1 mg. tablets twice a day by mouth, which may be increased to six times a day, or the subcutaneous injection 0.5 mg. twice a day. Graham and Wolff conclude that this beneficial action of ergotamine tartrate is due to its contraction of the smooth muscle of the arterial walls of certain cranial arteries which are painfully stretched and dilated during a migrainous attack. Thus the amplitude of their pulsations is reduced. However, Graham reported the use of ergotamine tartrate in a case of ophthalmoplegic migraine and stated that the headache had not been relieved.

"Homotransplantation of Preserved Cornea." Max Fine, M.D., San Francisco. American Journal of Ophthalmology, October, 1940.

This is a subject that has received a great deal of attention in the scientific and lay press. The author makes a comparison of blindness in the U.S.S.R. and the U.S.A. It is found to be much more prevalent in the U.S.S.R. He estimates that there are probably 10,000 individuals in the United States that would probably benefit from keratoplasty.

The procuring of suitable corneal tissue for keratoplasty is sometimes difficult but the author has found that in his work many more eyes with useful corneas are enucleated than there are suitable cases for transplantation. So it became a matter of waiting for the enucleation case when a proper case for transplantation was found. However it would be much more convenient if it were possible to use the cornea of a cadaver. To this end the author experimented and found that:

"The results of a limited, controlled experiment suggest that corneal tissue used immediately after removal of the eye or the death of the animal is superior for optical keratoplasty to tissue that has been preserved for more than 24 hours at low temperatures. Cornea that was preserved for 24 hours gave results which approached those obtained with "fresh" cornea, but the preservation of cornea for 48 hours or more definitely jeopardized the chances for successful transplantation.

The reported results of optical keratoplasty in man likewise indicate that superior results have been obtained with "fresh" material. Until more conclusive evidence of the superiority of preserved cornea for keratoplasty is forthcoming, the conservative surgeon will choose to use fresh tissue, if it is available, or tissue preserved for a minimal length of time. The experiences of surgeons in other branches, and the precepts of physiology and pathology will support his choice."

"Acute Suppurative Mastoiditis, Sulfanilamide Therapy, Agranulocytosis and Death." Joseph Kasnetz, M.D., Brooklyn. Archives of Otolaryngology, October, 1940.

This is a case report of the first death in acute suppurative mastoiditis treated by sulfanilamide. It is interesting due to the fact that we have heard so many good reports on the use of this drug in ear infections. This will call attention of the otologists to the fact that the drug is also dangerous.

This case is a woman, age 45, with continuous otalgia on the right side for eleven days, otorrhea for nine days, severe headache for two days before entering the hospital; temperature 101 to 103 F.; myringotomy performed twice; excruciating pain behind the ear and periodic chills. After forty-eight hours of sulfanilamide therapy and no improvement, a simple mastoid was done. For four days following the operation no improvement took place, the temperature remained elevated to 103 F. On the fifth day postoperative the mastoid was inspected and no additional pathology found. A spinal puncture was done and no great amount of pathology found. The temperature dropped to normal and remained so for the next ten days. Sulfanilamide was discontinued after four days of normal temperature. A transfusion of 300 cc. of whole blood was given for extreme weakness and secondary anemia. The patient continued to improve steadily and about two weeks after operation when the dismissal of the patient from the hospital was being considered, an erythematous rash appeared over the upper and lower extremities. Herpetic eruptions appeared on the upper lip; temperature 105 F; tonsillar fauces appeared ulcerated. Completed examinations showed no organic findings. Blood examination showed an agranulocytosis. Another transfusion of 300 cc. of whole blood was given. Three days later the patient died with a pulmonary edema associated with cardiac collapse.

Sulfanilamide given was as follows: 40 grains a day for the first fourteen days; 80 grains per day for the next six days; 30 grains per day for the next six days; a total of 80 Gm.; toleration was apparently good as the patient did not show any sign or symptoms of idiosyncrasy; blood counts were done at frequent intervals. The patient died from agranulocytesis which developed six days after cessation of administration of the drug. Culture of the pus from the infection showed Staphylococcus aureus and Streptococcus haemolyticus.

CARDIOLOGY

Edited by F. Redding Hood, M. D.
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"Concepts of the Treatment of Hypertension." I. L. Robbins, New Orleans Medical and Surgical Journal, 92:375 (January) 1940.

Essential hypertension is a syndrome in which the normal blood pressure of 150-160 systolic and 90 mm. of mercury diastolic are exceeded. Of insidious onset and variable course, it is for a long time asymptomatic and its presence only accidentally discovered. Early symptoms are few, vague and mild. Periods of remission occur in which progress is exceedingly slow to

stationary, but the advance of the disease is inevitable. Exacerbations follow and during these periods, symptoms few to many, and mild to severe, are present. Early, the blood pressure is moderately elevated and labile. Normal fluctuations occur under basal conditions, but as the disorder continues, the pressure tends to higher elevations, fewer fluctuations and more fixation. The heart, brain, kidneys, retina and vascular apparatus reveal no impairment of adequacy in the early stages but later, dysfunction and finally failure of one or more of these vital organs results. The symptomatology grows progressively more constant and distressing and eventually invalidism and death are the outcome.

Essential hypertension may be classified into four groups, based on the stage of the disease.

Group 1—Normal hyperreactors and extremely early cases. The prognosis is excellent.

Group 2—Early to moderately advanced cases. The prognosis is good. Groups 1 and 2 have no anemia.

Group 3—Moderately advanced to advanced cases. Anemia occurs in 50 per cent of these. The prognosis is serious.

Group 4—Advanced cases. Anemia occurs in 65 per cent of these. This group includes the malignant hypertensives. The prognosis is bad.

Of the mild cases, all ages, comprising Groups 1 and 2, 90 and 100 per cent have no symptoms or are readily relieved. Seventy-five per cent of the moderate cases, all ages, have no symptoms or can be relieved. Of the severe cases over 45 years of age, 30 per cent may obtain a substantial fall in the blood pressure; 40 per cent symptomatic relief, and 30 per cent with marked and irreversible changes, no possible amelioration of symptoms. While this grouping clarifies the problem it must be understood that concomitant arteriosclerosis of the aorta and large vessels will alter the course and profoundly influence the effect of treatment.

Treatment of hypertension may be considered under five major divisions:

1. Prophylaxis.
2. Medical treatment of hypertension, per se.
   a. In general.
   b. In crises (paroxysmal high rises in blood pressure).
3. Treatment of the cause of hypertension.
4. Treatment of the effects of hypertension.
5. Surgical treatment of hypertension.

The criteria for the diagnosis of hypertension are difficult to ascertain. The variability of the blood pressure under conditions of rest, activity, emotional stress, physical fatigue, seasonal and postural changes, coupled with the insidiousness of the onset and the long asymptomatic course, makes it extremely difficult to place the proper value on any therapy employed in hypertension.

Prophylaxis concerns itself with the removal of physical disabilities and faulty habits of living. All methods removing the stresses and strains of environmental tensions will accrue to the patient's benefit. Eradication of foci of infection and prevention of infectious and contagious diseases of childhood must protect the kidney and so decrease the potential threat to the renal vascular apparatus later in life and defer the tendency for hypertension to become clinically manifest.

Diet. The diet should be wholesome and well-balanced and calorically adequate. Salt and proteins are not contraindicated. Liberal use of fluids and foods rich in iron for anemia are desirable.

General measures. Proper rest, regular bowel function, reasonable exercise, moderate climates are all conducive to the maintenance of arteriolar relaxation. Moderation in all things is the objective to be attained. Patients accustomed to the use of alcohol and tobacco may continue to use them in small amounts. Untoward effects call for their discontinuance.

Physiotherapy. Hydrotherapy, massage, and diathermy have some relaxing value. Lasting and effective reduction of blood pressure and relief of symptoms have been reported by the use of x-ray irradiation of the pituitary and adrenal glands.

Drugs. The important drugs comprise two classes: (1) Vasodilators and (2) sedatives.

The ideal vasodilator remains a pious wish awaiting fulfillment. It should be one that is simple, non-toxic, possessing a steady, moderate, relaxing power and capable of use over an extended period of time. The nitrites are of little value in general management. However in the paroxysms of high blood pressure (the crises) they have a definite place. The prompt and sharp reduction is often sufficient to prevent serious vascular accidents. The iodides are still considered to be of some value.

Recently there has been a resurge of popularity in thiocyanate therapy. The thiocyanates, sodium and potassium, are vasodilators. The dose varies greatly, ranging from 0.1 to 0.45 gram daily, with a maintenance dose of 1.0 gram a day to 0.3 gram a week. Barker states the drug is safe, if the blood cyanate level is maintained at 8 to 14 mgm. per 100 cc. of blood. It is at this concentration that the drug's hypotensive effect is optimal. The toxic effect is accumulative. The mild toxic symptoms are weakness and fatigue, cramping pains and mild gastro-intestinal complaints. Barker insists that without blood cyanate determinations, the drug should not be used. It has dangerous possibilities."

The sedatives are probably the most valuable drugs in the production of arteriolar relaxation. The bromides and barbiturates are efficient in the relief of restlessness and anxiety in patients with excessive emotional reactions.

Psychologic therapy. This is considered to be of the greatest importance in the hypertensive regimen. The doctor must be tactful and kindly. He must gain the confidence and instill assurance and equanimity in his patients.

The belief that it is dangerous to reduce high blood pressure because it is a compensatory mechanism designed to maintain kidney, heart and brain function is erroneous. Real efficiency is not dependent upon hypertension. It is the relief of renal vascular constriction that improves function.

Treatment of the cause of hypertension. Concerning this, it must be obvious to all that the knowledge of the nature of the mechanism, at the present time, makes this impossible.

Treatment of the effects of hypertension. The discussion will not deal with this phase of the subject. Suffice to say that the same established methods as are used in the treatment of congestive heart failure, cerebral and coronary vascular accidents and uremia, due to other causes, are employed.

Surgical treatment. In recent years surgery has assumed a most significant place in the treatment of essential hypertension. The failure of medical measures and the rapid progress of the disease in some individuals is a sufficient and justifiable reason for surgery. Craig observes that "operation seems most efficacious in the definite vasospastic type of hypertension. As an average rule the patient must be under 50 years of age and the hypertension as of groups 2 or 3." Smithwick in a review of this subject found that good results were obtained only in 40 or 50 per cent of favorable cases and in only 5 to 10 per cent of the advanced cases, but in some of these symptomatic relief was marked. White notes that "it has not yet been established that the expected duration of life in hypertensive patients can be prolonged, even if the blood pressure is reduced." Goldblatt's experiences convince him that hypertension in man is produced by the constriction or the thickening of the wall of the arterioles of the kidney." It is conceivable, at least that some of these vessels are merely in spasm and still under the influence of the nervous

system and that they are therefore in a reversible state and can become dilated as a result of removal of the vasoconstrictor effect. The improvement that occurs from the operation in all probability is, apart from the effect of the enforced rest, due to the improvement of the circulation through the kidneys and not to any effect on the rest of the vasomotor apparatus of the abdomen. Another important development of the surgery of hypertension that may have great potentialities is an outgrowth of the renal ischemic hypertension of Goldblatt. Recalling that the ischemic kidney in animals results in the fall of the high blood pressure to normal, several cases have been reported of the extirpation of a diseased kidney in patients with pyelonephritis and arteriosclerosis with hypertension and in whom the blood pressure made a prompt return to normal.

INTERNAL MEDICINE

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"Vitamin K in Hemorrhagic Diseases of Infants and Children." By Newton Kugelmass. From the Department of Pediatrics, Bond Street Hospital, New York. American Journal of Clinical Pathology, October, 1940, Volume 10, Number 10.

In this article the author brings out some very pertinent and timely information concerning the prothrombin in health, the nature of human prothrombin, the relation between vitamin K and prothrombin, and prothrombin in disease.

Hemorrhagic diseases of the newborn is considered to invariably be due to prothrombin deficiency in the blood. The author has reported 10 cases, 9 of which showed marked depression in the prothrombin content of the blood with a corresponding lowering in the clotting time, all other clotting factors being normal. He has, therefore, designated this condition as acute hypothrombinemia. Mild cases are considered to be self limited, but severe cases respond poorly to all forms of therapy. It is thought that in these cases there is a lowered prothrombin content in the expectant mother's blood. Vitamin K is a valuable adjuvant in the treatment of latent or active hemorrhagic disease in the newborn, but therapy should not be limited to vitamin K when the active substance can be injected into the circulation in the form of blood transfusion. Contention that the prevention of hemorrhagic diseases of the newborn will diminish intracranial hemorrhage is only partially true because the former is a disease of the blood and the latter a result of trauma to the vascular system.

Icterus gravis neonatorum is briefly discussed and two cases treated with vitamin K are reported. The clinical course of these cases was favorable in one of the cases and unfavorable in the other. The author considers the low blood prothrombin as a secondary manifestation and liver disfunction being the primary condition.

Pseudohemophilia hepatica—In this rare disease the prothrombin is also diminished. Such a case is mentioned in which hemorrhagic manifestations responded favorably to vitamin K.

Hereditary pseudohemophilia is also mentioned and in this connection the author seems to conclude that vitamin K is not applicable unless there is coincident decrease in prothrombin. The following conclusions are drawn.

Infant's blood is undersaturated in prothrombin until the blood volume attains about a liter and may therefore be increased in concentration by vitamin K administration; but children's blood saturated with prothrombin at the adult level is uninfluenced by vitamin K administration, hence a diet adequate in milk and leafy vegetables provides ample amounts of this anti-hemorrhagic factor.

Prothrombin deficiency in the blood clotting mechanism is not a determining factor in hemorrhagic diseases of infancy and childhood except in the relatively rare, latent or manifest hemorrhagic diseases of the newborn, pseudohemophilia hepatica, icterus gravis neonatorum and occasionally in hereditary pseudohemophilia, the alleviation of which by vitamin K therapy is effective for the former two and possibly for the latter two types of blood disorders.

"Positive Friedman Tests in Non-Pregnant States." By E. Perry McCullagh and W. Kenneth Cuyler, Cleveland Clinic, Cleveland, Ohio. American Journal of Pathology, September 1940, Volume 10, Number 9.

In this, the authors bring out the possibility of positive Friedman tests in non-pregnant states and report 241 positives out of 2134 cases. Various conditions are mentioned as positive causes. Menopause, ovarian deficiency in women, diseases of men, endocrine disorders, conditions affecting the nervous system and miscellaneous conditions discussed. The following summarizes their findings.

The Friedman test may be positive in many conditions other than pregnancy or cases in which chorionic tissue exists. The test is useful for determining whether or not there is an abnormally large excretion of gonadotropic hormone in non-pregnant states. It is frequently positive about the time of puberty, possibly for physiologic reasons. It may be positive in psychoses, hysteria, epilepsy, and arterial hypertension in the absence of gonadal failure and may be useful in the differential diagnosis of pituitary cachexia and anorexia nervosa. Primary disease of the pituitary such as acromegaly or pituitary tumor and also organic lesions in the hypothalmus may cause positive tests.

In cases of dwarfism and some cases of obesity such as are usually designated Frohlich's syndrome on clinical grounds, positive tests have occurred suggesting that the gonadal failure present could not be due to deficiency of gonadotropic hormone production and must be secondary to other causes.

Positive tests may be present in hyperthyroidism, diabetes mellitus, and in adrenal cortical hyperfunction either of the functional type or in cases of adrenal cortical tumor.

Gonadal damage in either sex may cause a positive test; thus positive reactions are frequent at the menopause and in women with functional ovarian deficiency, ovarian tumors, or inflammation. Positive reactions are also seen in men with testicular deficiency, crytorchidism, and in prostatic hypertrophy.

Positive tests have been found also in alopecia areata and in cases of progressive myopia and keratoconus.

When inexpensive and accurate quantative methods become more readily available, the scope and value of gonadotropic hormone investigation will be greatly increased.

Comment: In our own experience we have had considerably less positives in non-pregnant women.

Laparotomies on all rabbits for careful inspection of the ovary as a control procedure has been the routine practice in our laboratories and weak positives have been repeated. We believe this eliminates a certain, perhaps low, percentage of positives which occur in non-pregnant women. However, we do not intend this comment to adversely criticise the experience of these authors.

UROLOGY

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"Gonorrhea In The Male. Results of Treatment With Sulfanilamide." Clinical Lecture at New York Session. A.M.A. Journal 1940. P. S. Pelouze, M.D. et al.

This is an important report as it details the findings of the Cooperative Clinical group from The American Neisserian Medical Society and U. S. Public Health Service on their results as obtained in the treatment of 3,039 cases of gonorrhea with sulfanilamide.

Several definite conclusions were obtained from a careful study of the records submitted by these workers. They can be summarized briefly in the following statements.

Sulfanilamide materially enhances the satisfactory results early in the course of the treatment period.

Sulfanilamide plus local treatment was over six times as effective in producing remission as was local therapy alone in those cases followed during the fifteen to nineteen day interval.

Sulfanilamide alone is only twice as good in obtaining satisfactory results as local treatment.

If less than 400 grains of sulfanilamide was given in twenty-one days, sulfanilamide plus local therapy was no better than local therapy alone. If the amount of sulfanilamide was more than 400 grains in seven days the results were no better than if the amount administered was less than the 400 grains in seven days but more than 400 grains in 21 days.

A two week period of negative two glass tests unsupported by either a negative smear or culture was a poor criterion of good results. Nearly one-third of the patients subsequently had bacteriologic or clinical evidence of the disease. Only 30 per cent of the cases under the best type of treatment obtained a maintained clinical remission of their disease at the end of one round of treatment.

If a patient has not shown a substantial clinical response with the first week of treatment under sulfanilamide it should be discontinued, and further, the administration of sulfanilamide for more than three weeks serves no good purpose. Repeat courses of sulfanilamide are rarely effective after initial clinical failure.

Comment: These reports definitely confirm the fact that properly administered local therapy is still a valuable part of the treatment of gonorrhea.

"Gangrene Of The Scrotum and Repair By A Simple Plastic Operation." Herbert H. Howard, M.D., Boston. Transactions Of The New England Branch Of The American Urological Association, 1939.

A case report of extensive gangrene of the scrotum due to anaerobic micro-organisms which was treated by the use of zinc peroxide paste locally. The paste is made by using one part zinc peroxide to ten parts by weight of water: It is applied as a wet dressing and because of the slow liberation of oxygen, controls this type of infection.

Because of the infection there resulted extensive destruction of the scrotum and it was necessary that a plastic repair be performed. This was accomplished by tissue flaps from the thigh transferred to the scrotal area and later detached forming a new scrotal pouch, thus obviating scarring and distortion of the perineum.

5,300 Doctors of 9,100 Total Must Be Procured Soon for Army

A total of 9,100 physicians, of whom 5,300 must be procured during the next few months, will be required for the total strength of the army of the United States next spring, which will be approximately 1,400,000 men, the surgeon general of the Army declares in an outline regarding the participation of the Army Medical Department in the 1940-1941 military training program, published in The Journal of the American Medical Association for Dec. 7.

The surgeon general says that the 1,400,000 men will represent a Regular Army of 400,000 officers and men, the National Guard of the several states federalized as the National Guard of the United States, numbering 200,000, and citizens selected for military training during the coming twelve months—about 800,000 in number.

"The Medical Department is charged with providing adequate medical service for the entire Army of the United States at posts, camps and stations within and beyond the continental limits of the United States," he declares. "In each military station in the United States there will be a hospital with four beds for each hundred of the military population. The operating room, kitchen, messing facilities and clinics in each of these hospitals will be of sufficient size to provide service for an additional patient per hundred men so that in an emergency it will be necessary to construct only the additional ward buildings. Furthermore, there will be general hospitals suitably located throughout the United States to provide an additional bed per hundred thousand of the military population.

"The provision of 5 per cent of hospital beds which can be rapidly expanded to 6 per cent may appear excessive when compared with hospitalization provided for the civilian population of this country. However, all of the military sick, including such cases as in civlian life are ordinarily cared for in their homes, must be treated in hospitals, since they cannot receive satisfactory care in the barracks. In addition, when young adults are brought together in large groups, contagious and infectious diseases that spread rapidly under such conditions occur much more frequently than in civil life. Furthermore, sufficient beds must be provided for the care of the sick during the winter and spring seasons of the year, when there is always an excessive number of such cases.

"The Medical Department will be charged with the training of the medical detachments and the medical department units of the Regular Army and the National Guard, and with the instruction of the service personnel in hospitals and other installations. It is also responsible for the preparation of the trainees in enlisted replacement centers, in hospitals and in service schools, who will receive there the individual Medical Department instruction which will permit their incorporation in organizations for further unit training.

"The initial requirements will be approximately 6.5 doctors for each thousand men in the military service. Rapid calculation will show that the total number for an army of 1,400,000 men will be 9,100 doctors. Additional ones may be required, but in the interest of economy the initial procurement will be limited to the number stated. The 1,200 physicians in the Regular Army and the 1,100 in the National Guard are included in the total, leaving approximately 6,800 physicians to be supplied by the Reserve Corps. There are now in active service or under orders approximately 1,500 Reserve physicians, leaving 5,300 to be procured during the next few months."